THE BEAUTIES OF NATURE AND ART DISPLAYED, IN A TOUR THROUGH THE WORLD;

CONTAINING

I. A General Account of all the Countries in the World, remarkable for either Natural or Artificial Curiosities; their Situation, Boundaries, Extent, and Divisions; their Rivers, Air, Soil, chief Cities, &c.

II. A particular Account of the most curious natural Productions of each Country, in the Animal, Vegetable, and Fossil Kingdoms; of remarkable Mountains, Caverns, and Volcano's; of Medicinal and other singular Springs; of Cataracts, Whirlpools, &c.

III. An Historical Account of the most remarkable Earthquakes, Inundations, Fires, Epidemic Diseases, and other public Calamities, which have, at different Times, visited the Inhabitants.

IV. Extraordinary Instances of Longevity, Fertility, &c. among the Inhabitants; together with an Account of their most celebrated Inventions, Discoveries, &c.

V. Particular Descriptions of the most remarkable public Buildings, and other singular Productions of Art.

VI. Curious Remains of Antiquity; remarkable Laws, Customs, and Traditions of the Inhabitants; together with a Summary View of the most extraordinary Revolutions among them.

Illustrated and embellished with Copper Plates.

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THE

BEAUTIES

OF

NATURE AND ART

DISPLAYED,

IN A

TOUR THROUGH THE WORLD.

Of INDIA. *(Continued.)*

SECT. III.

An Account of the moſt curious Arts, Manufactures, &c. of the Indians.

THE fine ſilks, callicoes, muſlins and other manufactures of various kinds, imported from the East-Indies, are a ſufficient proof that the natives are a very ingenious people. It is ſaid they will imitate a pattern, or copy a picture at firſt ſight, ſo that it will be hard to diſtinguiſh the copy from the original. On the Coromandel coaſt they paint their chints and calicoes with a pencil, but thoſe of the

more northern parts of India are printed; the colours however are very laſting, and not to be fetched out by waſhing. For inlaying in ivory no people exceed them; nor can they be equalled for cabinets, ſcrutores, and other curious wood-works, very finely lacquered. They are alſo remarkable for making canes with beautiful caſes of tortoiſe-ſhell, and abundance of other pretty toys.

The fineneſs of the Indian muſlins is particularly remarkable; and if a piece be torn, the natives have a method of joining it ſo nicely, that the place where it was rent cannot be diſcerned. The Cambodians are very expert in making white or painted dimities, and they have excellent carpets, beſides a ſort for the common people, which they call bancales, not unlike the plaids worn by the Highlanders of Scotland. They likewiſe weave and work with the needle rich hangings, coverings for the low chairs uſed by women of quality, and for their palanquins or litters, ſome of which are made of ivory and tortoiſe-ſhell, as are alſo their cheſs-boards, and other playing-tables. They make beads, little idols, bracelets, necklaces, and other toys, of a very tranſparent cryſtal, which is found in their mountains; and their manufacture of indigo is not inconſiderable.

The Indian goldſmiths, though their tools are mean, will imitate a piece of European work exactly enough, but their common ſmiths

are but indifferent workmen. The inhabitants Cambaya are famous for their manufacture of cups, ſpoons, hafts for knives, &c. which they make of agate that is found in ſome of their rivers. They alſo make fine quilts, and are the beſt embroiderers in the world.

In ſome parts of the Indies they have very good ſhip carpenters, who build after the Engliſh model. They chiefly uſe a firm laſting timber called teak, and the planks being rabbeted, and let into one another, the ſeams are made very tight with oakam, and a kind of pitch called dammer, brought from the Maldive Iſlands. The cocoa-tree furniſhes them with cables and cordage, and their anchors and guns they have from Europe. They have a kind of flat-bottomed veſſels called muſſoulahs, whoſe ſides are five or ſix feet high, and the planks very thin, being ſewed together with ropes, ſo that they will yield like paſt-board, and are in no danger of ſplitting when they ſtrike upon the ſhore. Theſe boats are rowed by ſix or eight men, and carry large quantities of goods. They have alſo a veſſel called a catamaran, in which they carry anchors, guns, and other heavy articles. Theſe conſiſt of only three or four pieces of timber tied together, and are moſtly uſed by fiſhermen, being not fit to carry goods that are damageable by wet, every little ſea beating over them; and for the ſame reaſon paſſengers ſeldom go in them, though they are as ſafe as any other veſſel; and

ſome people have ſailed in one of them, along the coaſt for a hundred miles together.

SECT. IV.

Particular Deſcriptions of the moſt remarkable public Buildings in India.

THroughout India, and the mogul's dominions, the houſes in general, even thoſe of the chief towns, are either built of wood or clay, and thatched or covered with branches of palm-trees, or the like; but the houſes of the richer ſort of people, who live in trading towns and cities, are built of brick, or ſtone, and covered with tiles, but not ſo well burnt, and durable as ours in Europe. However, though the generality of the Indian ſtructures make a mean appearance, the palaces of their princes and great men, the Mahometan moſques, and the heathen pagods, or temples for their idols, are many of them ſtately and beautiful fabrics. It is true their architecture ſeems odd to Europeans, being not like that of the ancients, whom we copy after, but in a taſte peculiar to the eaſtern nations, which is not without its beauties and conveniences.

The

The palace of the Great Mogul at Agra, the capital of his empire, as taken notice of by Travernier, Bernier, Thevenot, and other travellers, is a very ſumptuous and magnificent ſtructure. This palace, according to Manouchi, an Italian, who lived forty years at Agra, and was the mogul's phyſician. is a citadel in form of a creſcent, the walls whereof are mounted with canon. It is ſituated on the river Semana, or Gemma, and is built of a ſpotted ſtone like marble, which, when the ſun ſhines upon it, looks very beautiful at a diſtance. It is encompaſſed with ditches and a terrace garden cut through with canals of running water, intermixed with green plots and pleaſure-houſes, which form a delightful ſcene. Thevenot ſays, the palace conſiſts of three courts, with porticos and galleries running round them, which are finely gilt and painted, and ſome parts of them covered with plates of gold. Under the galleries of the firſt court, there are lodgings for the mogul's guards, in the ſecond, for the chief officers; and the third conſiſts of ſtately apartments for the emperor and his ladies, who, according to the cuſtom of the eaſtern princes, are very numerous. Within the walls, there are likewiſe apartments for the inferior officers of the court, and long galleries for the emperors manufactories of ſtufs of gold, ſilver, ſilk, tapeſtry, &c. and for his goldſmiths, enamellers, and other artificers. Between the palace and the river is a large area, where the troops exerciſe, and the emperor ſometimes pleaſes himſelf with ſeeing elephants fight, or

ſuch other diverſions as he orders to be exhibited there, or on the water. Here are alſo about thirty palaces of princes, and great men belonging to the court, all built of brick or ſtone, and in the ſame line with the mogul's palace, beſides many leſſer palaces, and other fine buildings, which all together afford a charming proſpect on the other ſide of the river. In a word, we may form ſome judgment of the ſpaciouſneſs and magnificence of this imperial palace, from the account of father Toſi, who ſays it is four miles in compaſs, and deſerves to be ranked amongſt the wonders of the world.

Nor is the mogul's palace the only ornament of Agra, for Thevenot informs us, that there is a vaſt number of moſques in that city, above eight hundred baths, and about threeſcore ſtately caravanſeras, ſome of which conſiſts of ſix large courts, with piazzas round them, and very commodious appartments for the merchants. The ſtately monuments, which ſeveral great men have erected for themſelves in their life-time, or to the memory of their anceſtors, contribute likewiſe to the beauty of Agra, particularly that which the emperor Jehan Guir cauſed to be built for his father Ecbar, which ſurpaſſes all thoſe of the grand ſignior's in magnificence. But that which the ſame emperor erected for one of his favourite wives, is ſtill more ſurpriſing, inſomuch that Bernier thinks it deſerves better to be reckoned among the wonders of the world than the Egyptian pyramids, or any of the others that are

ſo

ſo denominated. This mauſoleum was contrived and carried on by the beſt architects from all parts of the Indies, and was twenty years in compleating, though a vaſt number of hands were continually employed. It ſtands at a place called Secandra, which is reckoned one of the ſuburbs of Agra; and ſeems by the deſcription that travellers give of it, to be a prodigious pile of buildings, in the midſt of a large and beautiful garden, into which, ſays Thevenot, all the parts of the mauſoleum are diſtributed. They particularly admire the great pavilions, the beautiful porticos, the lofty dome that covers the tomb, the juſt diſpoſition of its pillars, the arches, that ſupport a great many galleries one above another, the fine piazzas, alcoves, and terraces: all which ſhew that the Indians are not unſkilled in architecture, and that though their orders, as we have already obſerved, are different from thoſe of the ancient Grecians, they are not without a pleaſing ſymmetry and magnificence.

Here it may be expected we ſhould take ſome notice of the Mogul's palace, at Dehli, or Delly, which is ſometimes reckoned the capital of his empire, the court frequently reſiding in that city, where the air is cooler, and more wholeſome than at Agra. This palace is likewiſe built in the manner of a citadel, being about two miles in circumference, ſurrounded by good walls, with round towers at proper diſtances built partly of brick, and partly of ſtone. On all ſides except towards the

the river, which is the ſame that Agra ſtands on, it has a ditch faced with free-ſtone, and alſo very lovely gardens. Towards the river, as at Agra, there is a ſquare for military exerciſes, the fighting of wild-beaſts, and ſuch like diverſions. Here are ſeveral apartments for artificers in the emperor's pay, for the guards and officers on duty, and for the great men who have the care of his houſhold. Thevenot makes particular mention of a ſtately hall, adorned with thirty-two marble pillars, where the emperor, having all his officers ſtanding before him, with their hands acroſs their breaſts, gives audience every day at noon, to all who apply to him for juſtice.

The Mahometans of the Indies are at a great expence in their moſques, which are commonly of free-ſtone, and ſometimes of marble; but the walls are perfectly plain, and the inſide has no painting or images. They are built much in the ſame form, as thoſe we have heretofore deſcribed in the Turkiſh dominions, being covered with a dome, and have ſmall high towers or minarets, which the prieſts aſcend at certain hours, to call people to prayers. There is ſcarce a Mahometan of any condition, but erects his mauſoleum in his life-time; for which end, they wall in a large piece of ground, with a reſervoir of water, planting it with trees and flowers like a garden, and here erect a little moſque, or temple, raiſing their monument near it, which is generally arched, and covered with a handſome cupola. In ſome of them, lamps

lamps are kept continually burning, and prieſts read their law, for which certain revenues are appointed.

Some of the pagods, or temples of the heathen Indians, are magnificent ſtructures, as we have already obſerved, being built of ſtone, with lofty ſpires and good carvings; but the inſide is uſually diſmal, having no other light than what proceeds from the lamps that are burning before the idols. The figures of theſe idols are ſo various, and ſome of them ſo monſtrous, that it is impoſſible to deſcribe them; nor are the temples that contain them of any certain form, but ſome round, ſome oblong, &c. almoſt every kingdom and province in the Indies, having their peculiar deities, and placing them in different kinds of ſtructures. The pagods of the Siameſe are the moſt ſtately, and their talapoins, or prieſts, the moſt numerous of any in the Indies, who live in convents, incloſed with paliſadoes of bamboo, their little cells looking like ſo many tents in an army. In the middle of the incloſure, ſtands the pagod or temple, with ſeveral pyramids round it, and a great number of idols; for the Siameſe, like other idolaters of theſe countries, have not only one chief idol, but many inferior deities. The revenues of theſe pagods are ſaid to be ſo large, as to ſubſiſt every day from fifteen to twenty thouſand pilgrims.

But of all the indian pagods, thoſe of Elora, near Doltabad, in the kingdom of Decan, are the

the moſt celebrated, according to Mr. Thevenot, who made a journey thither, on purpoſe to ſee them, induced by the reports he had heard of them at Surat. Having aſcended a rugged mountain, by a road cut out of the rock, with a wall on the ſide of it, to hinder the fall of carriages, our traveller informs us, he diſcovered a ſpacious plain, diverſified with towns, villages, gardens, woods, and arable land, many lofty tombs covered with cupolas, and the moſt remarkable pagods in the Indies. The firſt thing he took particular notice of, was ſeveral high chapels, where he entered a poarch cut out of the rock, on each ſide whereof was a gigantic figure of a man, cut out of the rock likewiſe, and the walls were covered with various figures in relievo. Beyond this porch he found a ſquare court, every way a hundred paces; the walls whereof, which were the natural rock, were about thirty-ſix feet high, and as ſmooth and even, as if plaiſtered with a trowel. Theſe walls are hollowed underneath, the void ſpace making a gallery, ſupported by a row of pillars cut in the rock, which ſeems ſo undermined, and ſo ſlenderly propped, that one can hardly forbear ſhivering at firſt entering into it. In the middle of this court, there is a chapel, whoſe walls both without and within are adorned with baſs-reliefs, repreſenting griffins and ſeveral other animals. On each ſide of the chapel, there is a pyramid, or obeliſk, larger at the baſis than thoſe of Rome, but not terminating in a point, and having ſome characters upon them, which Thevenot did not under-

underſtand. Near the obeliſk, on the left hand, is the figure of an elephant as large as the life, cut out of the rock, like the reſt of the fabric, but his trunk is broken. At the farther end of the court, are two ſtair-caſes, hewn in the rock; aſcending which, we have the proſpect of a plain, extending a league and an half, or two leagues in length, full of ſtately monuments, chapels, and pagods, all owing their origin to the rock, which abounds in this part of the country.

Amongſt the reſt of theſe heathen temples, there is a very large one built in the rock, having a flat roof, ſuſtained by eight rows of pillars, about a fathom diſtant from each other. This temple is divided into three parts; the body of it taking up more than two thirds of the whole; the choir, which is narrower, makes the ſecond part; and the third, which is the end of the temple, has the appearance of a little chapel. In the middle of this chapel, if we may call it ſo, ſtands a gigantic idol, with a head as big as a drum, and its other parts proportionable. The walls are alſo covered with monſtrous figures in relievo, and on the outſide of the temple there are ſeveral little chapels, adorned with ſculptures, repreſenting men and women embracing one another.

Our author went into ſeveral other temples of different ſtructure, but all formed in the rock, and adorned with figures, pillars, and pillaſters. One of them is divided into three ſtories, ſupported by ſo many rows of pillars,

and each of them having a great door in the front, with ſtairs hewn out of the ſolid rock. There are alſo ſeveral arched temples, in one of which is a ſquare well, full of excellent water. In ſhort, all along this rock, for more than two leagues, there are a vaſt number of pagods, each dedicated to ſome heathen ſaint, whoſe ſtatue is placed upon a pedeſtal, at the farther end of the pagod.

SECT. V.

Remarkable Laws and Cuſtoms of the Indians; *together with ſome general Accounts of their Origin and Hiſtory.*

THE Pagans of India marry their children while they are infants; and theſe are always married to one of their own tribe, and to one of the ſame trade. A carpenter never marries his child to that of a ſmith, nor a weaver to the child of a waterman. At what age ſoever the parents contract for their children, the married parties do not cohabit till the woman is twelve years of age, and the man ſome years older. Before the match is agreed on, the aſtrologer or prieſt, is always conſulted, whether it is likely to prove fortunate. An enquiry is alſo made what hour is likely to prove propitious for the ſolemnization

and

and conſummation of it. And when all things are ſettled, a grand proceſſion is made through the ſtreets for ſeveral nights ſucceſſively, by the light of torches: the lady carried in one palanquin, on men's ſhoulders, and the bridegroom in another, with muſic playing before them. When the ſhow is over, the bride and bridegroom are ſet down at her father's houſe, and here a table being placed between them, they join their hands croſs it; and the prieſt, covering both their heads with a cloth, repeats ſome prayers for their happineſs, and gives them his benediction; and having ſprinkled the company with perfumed water, coloured with ſafron, the ceremony is concluded, and an entertainment prepared for their friends and acquaintances.

When an Indian dies, the corps is waſhed, and dreſſed in the beſt cloaths the deceaſed wore in his life-time; and a funeral pile being prepared at a ſmall diſtance from the town, it is laid upon a bier, and being attended by the bramin, or prieſt, with the relations and friends, is carried to the pile, and burnt to aſhes: abundance of ſweet wood being laid on the pile, if it be a perſon of figure, inſomuch that the air is perfumed by it, which makes a funeral very expenſive. If the deceaſed died within a ſmall diſtance of the river Ganges, the corps is thrown into that ſtream, as the readieſt road to paradiſe: this river being worſhiped by the Indians as a god. Vaſt numbers of people come from Tartary, and other diſtant parts, to waſh in

this river, for the expiation of their ſins; and during the time of waſhing in it, they inceſſantly cry out "O Ganges, purify me!" The Indians dip their ſick in this river, in order to recover their health; and if they die ſoon after, they are reckoned happy; and the water of it is in ſuch eſtimation, that it is tranſported in large quantities to every part of India. There are alſo ſome other rivers in India, which the inhabitants make the object of their adoration, and in which they throw their deceaſed friends, as well as into the Ganges; from whence it appears, that the cuſtom of burning the dead, is not univerſal in India.

The beloved wife burning herſelf with her huſband, has formerly been very frequent; though this horrid cuſtom appears now to be much diſuſed. The mogul, who is ſovereign of the greateſt part of India, does not ſuffer it in his dominions; and the Chriſtians univerſally abhor the practice: however the woman always had her option whether ſhe would ſubmit to it or not. She was indeed under ſome diſgrace, if ſhe refuſed, but looked upon as a heroine, if ſhe had reſolution to undergo the fiery trial.

The mourning uſed in India is a tattered neglected dreſs: the women ſhave their heads on the death of a huſband, but the men never ſhave their heads, or even cut their hair, but on the death of their father or ſovereign. There is a colony of the ancient Perſians called Gaurs, who fled to India when the Mahometans conquered Perſia, ſtill reſiding at Surat, about

about a mile from which city they have a repoſitory for their dead; and are of opinion, that they cannot do their deceaſed friends greater ſervice, than by leaving them to be devoured by the beaſts of prey: they erect ſtages or raiſed floors, in this repoſitory, which is ſurrounded by a wall twelve feet high, and an hundred in circumference, where the bodies of their dead are expoſed to the vultures, and other birds of prey.

Few nations exceed the Tonquineſe in the exact and regular adminiſtration of juſtice; for though they have no courts of judicature, any ſingle magiſtrate may cauſe any offender to be brought before him; and may puniſh him according to the laws of the country without any formal proceſs; and ſentence is immediately executed. As the Tonquineſe ſhave the heads of none but criminals, if ſuch eſcape, they are ſoon detected, and carried to the governor of the province. They puniſh murder by beheading with a back-ſword; and even in caſes where the criminal has hopes of pardon, the judge makes him hold a wiſp of graſs in his mouth, to denote that he is become a beaſt. Theft is puniſhed by cutting off a member, or part of one, according to the nature of it; ſometimes one joint of a finger, ſometimes all of it; and, at other times, perhaps the whole hand. For other offences, the criminals are loaded with iron chains, and great wooden clogs; and ſometimes have heavy boards, made like a pillory, hung about their necks for a

month together: but the common puniſhment is whipping their naked bodies with a ſplit bamboo. Debtors are often condemned to work for their creditors, till their debts are paid, during which time they live on rice and water, and undergo ſuch other dicipline as the creditor pleaſes.

The Tonquineſe girls take care to keep their teeth very white, till they are about twelve years of age, when they dye them as black as jet, with the juice of a certan herb, which they hold in their mouths three days ſucceſſively: but it is of ſo poiſonous a quallity, that they muſt ſwallow no part of the juice; and the women not only affect black teeth, but long nails. The huſband may divorce the wife at pleaſure, but the wife cannot divorce the huſband, except on very extrarodinary occaſions. They eat with two little ſticks gilt and varniſhed, which ſerve inſtead of forks; and when the huſband divorces the wife, he takes one of his own ſticks, and one of the wife's, and breaks them, after which they each take one half, and ſew it up in a piece of ſilk. If a woman is convicted of adultry, ſhe is caſt to an elephant bred up for the purpoſe, who gives her a toſs with his trunk, and tramples her to death, the moment ſhe falls to the ground.

Tavernier ſays, that the Pagans in the mogul's dominions, when a child does not ſuck, carry it out in a linen cloth, and tie it to the bough of a tree, where they leave it from morning

ning till night, when they fetch it back: and if it refuſe the breaſt again, they tie it up three days after; and, if it ſtill coutinues to refuſe the breaſt, they believe it to be a devil, and drown it. During this experiment, the crows many times pick out one or both of the infant's eyes, which is the reaſon that many of the Pagan Indians have but one eye, and many none at all.

There is a religious order among the Bramins, called Faquirs, who make vows of poverty and celibacy; and to obtain the favour of Brama, ſuffer the moſt dreadful tortures. The auſterities of ſome of theſe are incredible, to ſuch as have not been eye-witneſſes of them: ſome ſtand for years upon one foot, with their arms tied to the beam of a houſe, or branch of a tree. By theſe means, their arms ſettle in that poſture, and ever after become uſeleſs; ſome ſit in the ſun, with their faces looking upwards, till they are incapable of altering the poſition of their heads. The people in all theſe caſes make a merit of feeding them.

When the Zamorin, or emperor of Callicut, on the coaſt of Malabar, marries, he muſt not cohabit with his bride, till the chief prieſt has enjoyed her, for which ſervice he receives 500 crowns; and, if he pleaſes, he may inſiſt upon her company three nights. This cuſtom prevails, from a perſuaſion that the firſt fruits of her nuptials muſt be an holy oblation to the god he worſhips. The nobles who take a maid to wife

wife, alſo pay the inferior prieſts for the like ſervice. The daughters of the nobility in this kingdom, may marry ſeven or even twelve huſbands, one after another; and the firſt huſband cohabits with her, till ſhe takes a ſecond; after which the huſbands cohabit with her in turn, according to their priority of marriage, eight or ten days, as they can fix the term among themſelves; and he who lives with her, during that time, provides for her ſupport. When the man who cohabits with her goes into the houſe, he leaves his arms at the door, and none dare remove them, or enter the houſe on pain of death: but if there are no arms to guard the door, any acquaintance may freely viſit her. All the time of cohabitation, ſhe ſerves her huſband as purveyor and cook: ſhe alſo takes care to keep his cloaths and arms clean. When ſhe proves with child ſhe names the father, who takes care of its education, after ſhe has ſuckled it: but from the impoſſibility of aſſigning the true heirs, the eſtates of the huſbands deſcend to their ſiſter's children; and, if there are none, to the neareſt relation of the grandmother. Theſe ladies of quality muſt not, however, marry out of the ſame caſt or tribe, under the pain of degradation, if they marry into a lower tribe.

By the conſtitution of Attingo, upon the Malabar coaſt, the country is to be always governed by a queen, who muſt not marry; but that heireſſes of her blood may not be wanting, ſhe may chuſe whom, and as many as ſhe pleaſes, to admit to the honour of her bed. The hand-

ſomeſt young men about the court generally compoſe her ſeraglio. The ſons are in the rank of nobility, and the daughters alone can pretend to the ſucceſſion.

The ſmall-pox is ſo extreemly dreaded in the kingdom of Pegu, and in particular in the province of Kirian it is eſteemed ſo infectious, that if any one is ſeized with it, all the people in the neighbourhood remove to the diſtance of two or three miles, and there build new houſes of bamboos and reeds, leaving with the ſick perſon a jar of water, a baſket of rice, and ſome earthern pots to boil it in; and then bid him farewell for twenty days. If the patient has ſtrength enough to get up, and boil his rice, he may recover; if not, he muſt die without attendance: but if he ſurvives the twenty days, they take him away, conduct him to their new-built town, and make him a burgeſs.

The ordeal trial is much practiſed in the kingdom of Pegu, for diſcovering ſecret murder, theft, or perjury. One way is, to make the accuſer and the accuſed take ſome raw rice in their mouths, when he who is guilty of the crime alledged, or of falſe accuſation is ſuppoſed not to be able to ſwallow it eaſily. Another way is, driving a ſtake into a river, and making both the parties take hold of it, and keep their heads under water, when he who continues longeſt without breath is the perſon to be credited; and whoever is convicted by this

this trial, either for the crime alledged, or for malicious ſlander, muſt lie on his back three days and nights, with his neck in the ſtocks, without meat or drink; and is beſides fined. They have likewiſe the cuſtom of dipping the naked hand into boiling oil, or melted lead, to clear them when accuſed of atrocious crimes; and if the accuſer ſcalds himſelf, he muſt undergo the puniſhment due to the crime, which makes people very cautious how they calumniate one another.

With reſpect to the hiſtory of India, little more than the name of the country appears to have been known to the ancients. Semramis, ſoon after the commencement of the Aſſyrian empire, is ſaid to have carried her arms to India; and Bacchus, it is conjectured, conquered part of this country: but Alexander's invaſion of India, after the eſtabliſhment of the Grecian empire, is not doubted. None of theſe heroes however retained any part of their conqueſts, if they made any, or reſided there long enough to acquaint themſelves with the ſtate of the country, or even to deſcribe the bounds or true ſituation of it; and the Romans never attempted to reduce it under their dominion.

India was probably firſt peopled from Perſia; that kingdom being contiguous to it, and by the way of Meſopotamia, where, it ſeems to be agreed, the deſcendants of Noah firſt ſettled after the flood. But whoever were the firſt inhabitants, the Ethiopians next poſſeſſed

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ſouthern part of India, as is evident from their poſterity ſtill remaining there; not a white man, or any other complexion but blacks, poſſeſſing any part of the country; that they are of the ſame origin with the Ethiopeans is evident, not only from their long hair, but from their regular features, very different from the Guinea blacks: and that the original inhabitants of this part of India were black is improbable, becauſe none of the natives of the other parts of India are black, though they lie much nearer to the equator.

The next people that poſſeſſed the ſhores of India were the Arabians: for almoſt all the coaſt was ſubject to Arabian or Mahometan princes, when the Portugueſe arrived here in the year 1500; and theſe had probably diſpoſſeſſed the Ethiopians, and driven them up into the midland country, where they ſtill inhabit.

The next people who appear to have invaded India, were the Mogul Tartars, under the conduct of Tamerlane, about the year 1400. Tamerlain fixed his third ſon, Miracha, in the north of India and Perſia, under the ſtile and title of the Great Magul, which title his poſterity the emperors of Indoſtan, enjoy at this day; but the ſouthern part of Indoſtan or Hither India was not reduced till the time of the emperor Aurengzeb, who began his reign in the year 1667, and died in 1708.

With regard to the kings beyond the Ganges, we know little of their hiſtories, nor are

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we acquainted, whether they have any written accounts of former times.

CHAP. IV.

Of CHINA *and* JAPAN.

SECT. I.

A general Account of China, *and* Japan.

THE kingdom of China, comprehending Chineſe Tartary, is ſituated between 95 and 135 degrees of eaſt longitude, and between 20 and 55 degrees of north latitude. Its greateſt length from weſt to eaſt is about 2000 miles; and its greateſt breadth, from north to ſouth 1600 miles. It is bounded by Ruſſian Tartary on the north, by the Pacific Ocean, which divides it from North America, on the eaſt; by the Chineſe ſea on the ſouth; and by the kingdom of Tonquin, and the Tartarian countries of Thibet and Ruſſia, on the weſt.

The moſt general diviſions of this vaſt empire are into ſeven grand parts. 1. North of a prodigious wall, 1500 miles in length, which ſeparates China from Tartary, and is called the Chineſe Wall, are the province Niuche, with its chief city of the ſame name; the province

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of Corea, the chief city of which is Petcheo; and the province of Laotonge, the chief city of which is Chinyam. 2. Within the Wall, and adjoining to it are the province of Pekin, with its chief city of the ſame name; the province of Xanſi, the chief city of which is Tayen; and the province of Xenſi, the chief city of which is Sigam. 3. On the coaſt of the Chineſe Sea are the province of Xantum, the chief city of which is Chinchis; the province of Nanking, with its chief city of the ſame name; and the province of Chiam, the chief city of which is Nimpo. 4. The midland provinces are thoſe of Honan, with its chief city of the ſame name; Huquam, the chief city of which is Toangfu; and Kiamſi, the chief city of which is Nankan; 5. The ſouthern provinces are thoſe of Fokien, the chief city of which is Fochen Amoy; Canton, with its chief city of the ſame name; and Quamſi, the chief city of which is Quelin. 6. the Weſtern provinces are thoſe of Suchuen the chief city of which is Tchinteu; and Quechau and Yunam, each retaining the name of its reſpective chief city. 7. The Chineſe iſlands are Formoſa, the chief city of which is Tambay; Ainan, the chief city of which is Lincato; Macao, with its chief city of the ſame name; and the Baſhee Iſlands.

The Japan iſlands, ſituated in the Chineſe Sea, between 130 and 144 degrees of eaſt longitude, and between 30 and 40 degrees of north latitude, comprehend Japan Proper, or Niphon, the chief city of which is Jeddo;

Tonſa and Bongo, retaining each the name of its reſpective chief city; and Diſnia, the chief city of which is Nangaſaque.

In China there are few mountains, the higheſt of which are in Chineſe Tartary, and on the confines of China; but in Japan there are ſome very high mountains, particularly in Japan proper, or the iſland of Niphon, there is a mountain of ſuch a prodigious height, as to be ſeen forty leagues off at ſea, though diſtant eighteen leagues from the ſhore.

The chief rivers of China are 1. The Yamour, which divides Ruſſian from Chineſe Tartary. It riſes in Ruſſian Tartary; and running from weſt to eaſt, falls into the ſea of Corea, oppoſite to the land of Jeſſo. 2. The river Argun, which, riſing in a lake of Mogul Tartary, runs from ſouth to north, and falls into the river Yamour, forming the weſtern boundary between Chineſe and Ruſſian Tartary. 3. The Crocceus, called alſo Hoambo, or the Yellow River, riſes in Tartary, runs from weſt to eaſt; and entering the Great Wall in the province of Xenſi, bends to the ſouth-eaſt, and diſcharges itſelf in the gulf of Nanking. 4. The river Kiam, or the Blue River, riſes in the province of Yunam, and running north-eaſt, falls alſo into the gulf of Nanking. 5. The river Tay, riſing in the province of Quechen, runs ſouth-eaſt to the river of Canton, and falls into the Chineſe ſea, at the iſland of Macao. Beſides theſe, and many other rivers, there are a vaſt

a vaſt number of navigable canals in China; and ſome of them of ſuch a prodigious extent, as to be a thouſand miles in length; and deep enough to carry veſſels of a very great burthen: the principal canals are lined with ſtones on the ſides; and when the boats do not ſail, they are drawn by men. In China, there are ſuch a number of families that live on the water all their lives, that ſome writers relate there are almoſt as many people upon the water, as upon the land, in this country.

The air of China, running through ſo many different climates, is very different in different provinces; the ſouth part of this empire, which lies under the tropic of Cancer, is exceſſive hot; and has its periodical rains, as other countries under the ſame parallels; the middle part enjoys a temperate climate and a ſerene ſky, and the northern parts are cold, and ſubject to the like inclemencies of weather as other northern countries. In this variety of climates, the Chineſe have all the fruits and produce of the earth, that are to be found in hot or cold countries; and, having a fruitful ſoil, ſpare no pains in improving it. No country produces better raw ſilk, or in greater quantities, than China; and China and Japan ware are peculiar to theſe two countries.

In Japan, the winters are ſaid to be exceſſive cold, occaſioned by the vaſt quantities of ſnow which fall there, and the great rains and bleak winds, to which thoſe iſlands which lie

high, are continually expoſed; theſe iſlands are alſo frequently much troubled with violent ſtorms and hurricanes, but particularly with thunder and lightning, which often do a vaſt deal of damage: the ſoil of the Japan iſlands is in general very fertile, and produces great plenty of the fineſt and whiteſt rice.

SECT. II.

A particular Account of the moſt curious natural Productions of China *and* Japan, *in the Animal, Vegetable, and Foſſil Kingdoms; of remarkable Mountains or Vulcanos; of medicinal and other ſingular Springs; of Rivers, Cataracts, and other natural Objects of Curioſity.*

ANIMALS.

BOTH China and Japan have moſt of the animals found in Europe, and in no leſs abundance. The Chineſe horſes are but of an ordinary ſize and ſtrength, but they are ſupplied from Tartary with thoſe that are more ſtrong and ſerviceable. The horſes of Japan are not large, but they are moſt of them handſome, and remarkable for their ſwiftneſs. They have alſo camels, mules, and other beaſts of burden. Buffaloes are common in theſe countries, and they have a breed of ſheep with very large

large tails, like thoſe of Turky. Their mountains and foreſts abound with wild beaſts of various kinds, as bears, boars, wolves, leopards, tygers, &c. which laſt are ſaid to be very fierce and dangerous, as they commonly go in ſearch of their prey in large numbers. Elephants are chiefly bred in the province of Junnan, but are found in moſt other parts of the empire; and they are likewiſe bred up tame in the cities and towns of Japan. They have plenty of hares, deer, and other game, whoſe ſkins are a profitable commodity. Their hogs are black, and have deep bellies, reaching to the ground, like a breed that we ſee in England. They have great plenty of geeſe, ducks, and all manner of poultry; and their woods and mountains abound with eagles, cranes, pelicans, pheaſants, and many other birds well known in Europe, beſides ſeveral that are peculiar to thoſe eaſtern countries. As to fiſh, their rivers, canals, and lakes are well ſtored with a vaſt variety; and in the fiſh-ponds of the curious there is a particular kind, called the gold and ſilver fiſh, which merits a deſcription.

This beautiful animal is uſually about three or four inches long, and of a proportionable thickneſs. The male is of a moſt delicate red from the head to the middle of the body, and from thence to the extremity of the tail of a bright golden colour, far ſurpaſſing our fineſt gilding. The female is white, and its tail, and part of its body, looks as if it was perfectly waſhed over with ſilver. Their tails are

not flat and even, like thoſe of other fiſhes, but ſhaped ſomething like a noſegay, thick and long, which contributes much to the beauty of the animal, beſides the juſtneſs of its proportions. Theſe fiſh are very tender, and ſenſible of the leaſt injuries from the air; inſomuch that great heat or cold, ſtrong ſmells, the report of a cannon, a clap of thunder, or the like, very much affects them, and ſometimes occaſions their dying. Thoſe who keep them in ponds and baſons in their gardens, place a large earthern veſſel with the mouth downwards at the bottom of the water, which is full of holes in the ſides, that the fiſh may retire into it in hot weather to ſhelter themſelves from the ſun; and they likewiſe ſtrew herbs on the ſurface of the water for the ſame purpoſe. A very little food ſuffices them, which is uſually ſmall worms bred in the water; but nothing pleaſes them better than a ſort of pap made of wafers, which is adapted to their natural delicacy and tenderneſs. In the ſouthern parts of the country they multiply exceedingly, if care be taken to preſerve their eggs, which ſwim upon the water. Theſe eggs are generally taken up and put into ſmall veſſels, which being expoſed to the ſun, they are hatched by the heat; and after the fiſh are grown to about an inch in length, they may be ſafely removed into larger reſervoirs.

The Chineſe have not only their golden fiſh, but alſo a bird called Kinki or golden hen, ſo ſtiled for its extraordinary beauty both of co-

lour and ſhape, as well as its excellent taſte, being ſaid to exceed the fineſt pheaſants. Its feathers are of an exquiſite blue and red, beautifully ſhaded towards the extremities of the wings and tail, and variegated with ſeveral other colours.

The louwa or fiſhing bird of China is a very great curioſity, if the accounts we have of it are to be believed. The bird is as big as our heron, but ſhaped more like a raven, is webb-footed, and has a long crooked bill. The fiſhermen train up theſe fowls to catch fiſh, and bring them to be as tractable, and as much under command, as hawks or ſpaniels are to the ſportſmen in England. When they go to fiſh with them, either in the ſea or the rivers, they have them perched on the ſides of the boat, waiting for the word of command; which, when the fiſherman gives, they take flight, and ſeperately look for their prey; and when one of them has ſeized a fiſh, after which they frequently dive, he brings it to his maſter in the boat, and then flies away again upon the ſame errand. As fiſh is the natural food of theſe birds, they need no teaching to catch them; but the difficulty lies in reſtraining them from devouring their prey, and to train them ſo as to bring it to their maſters. To this end they tie a ſtring about their necks, ſo ſlack as to ſuffer them to breathe, but ſo tight as to prevent their ſwallowing a fiſh, unleſs it be very ſmall; and when they have taken fiſh enough to ſatiſ-

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fy their maſter, he takes off the ſtring, and lets them work for themſelves.

VEGETABLES.

OF all the vegetable productions of China, the tea-plant, from the great requeſt its leaves are now in throughout moſt parts of Europe, firſt claims our attention. It is an evergreen ſhrub, of which there is only one ſpecies, and cultivated in the following manner. A number of ſeeds, not leſs than ſix, nor exceeding fifteen, are put into a hole, about five inches deep in the ground. Some time after the ſeeds are ſown, the land is weeded and manured; and at the expiration of three years, from the time of ſowing, the leaves are fit to pluck. In about ſeven years the ſhrub arrives at its full growth, which is between ſix and ſeven feet in height; and it is then cut down to the ſtem, which occaſions it to put forth a multiplicity of freſh ſhoots and leaves, to the great emolument of the owner.

There are three proper ſeaſons for gathering the leaves, the firſt being about the latter end of February or beginning of March, when they are not above three days old, and hence their ſcarcity and price are ſo great, that they are diſpoſed of to crowned heads and great perſonages only. This is called imperial or powder-

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ed tea. The ſecond gathering is about the latter end of March or beginning of April, when ſome of the leaves only are at their full growth; but they are all plucked promiſcuouſly, and afterwards ſorted into different claſſes, according to their age, ſize, and goodneſs. The leaves collected at this time are called Chineſe tea; but the youngeſt of the leaves being carefully ſeperared from the reſt, are generally ſold for imperial tea. The third gathering is made about June, when the leaves are full grown, and in great profuſion, but this being the coarſeſt kind of tea, is chiefly drank by the lower claſs of people in China.

As many perſons have not ſuitable conveniences at home for curing and preparing the tea, or may not underſtand the proceſs, public drying-houſes are erected, and ſo regulated that all who think proper, may carry their leaves there at any time to be dried. Theſe buildings contain a number of ſmall furnaces about three feet high, each having at top a large flat iron pan, either ſquare or round, bent up a little on the ſide which is over the mouth of the furnace, in order to ſecure the workman from the heat of it, and to prevent the leaves from falling off. This iron pan being heated to a certain degree, a few pounds of the freſh leaves are put into it, and ſoon begin to crack, when it is the buſineſs of the workman to ſhift them as quick as poſſible with his bare hands, till they grow too hot to be eaſily endured; at which inſtant he takes them out with a kind of ſhovel, reſembling a fan,

fan, and throws them on a long low table covered with mats, to workmen who are ſeated there ready to receive them. Taking ſmall quantities at a time, they roll them with the palms of their hands in one direction, while others are fanning them, that they may cool the more ſpeedily, and retain their curl the longer. This proceſs is repeated two or three times, or oftner, before the tea is put into the ſtores, in order that all the moiſture of the leaves may be thoroughly diſſipated, and their curl more compleatly preſerved; but on every repetition the pan is leſs heated, and the operation performed more ſlowly and cautiouſly; after which the tea is ſeperated into the different kinds, and depoſited in the ſtore, either for exportation or home conſumption.

Vaſt quantities of medicinal roots are found in China, but none is held in ſuch high eſtimation by the inhabitants as the ginſeng, which was long ſuppoſed to be an univerſal remedy, and to be found only in the province of Leaotung, and the neighbouring mountains of Tartary: but within theſe few years it has been diſcovered in North America, and ſufficiently proved to be a common root of very trifling uſe in medicine.

China, as well as ſome parts of the Indies, produces great quantities of ginger, an aromatic root, well known amongſt us, and of conſiderable uſe both as a ſpice and a medecine. The plant grows wild in many places near the ſea

ſea, but that which is cultivated is much better. It reſembles our ruſh, both in ſtem and flower; and the root does not run deep into the ground, but ſpreads itſelf near the ſurface, in form not unlike a man's hand, and very knotty. When arrived at maturity, they dig it up, and dry it on hurdles, either in the ſun, or in an oven; they alſo comfit the root, when green, with ſugar, and honey, having firſt ſteeped it ſome time in water, to take away part of its acrimony, and diſpoſe it to let go its outer ſkin. The Indians likewiſe eat it green, by way of ſallad, firſt cutting it ſmall, mixing it with other herbs, and ſeaſoning it with oil and vinegar They alſo make a marmelade of it, the northern people eſteeming it excellent againſt the ſcurvy.

The wood called ſantal, or ſanders, is another production of China, as well as of the kingdom of Siam. There are three ſorts of ſanders, white, yellow, and red, which are all produced by trees of the ſame kind, their different colours being ſuppoſed to ariſe from the difference of climates where they grow, or from the different parts of the tree from whence they are taken. According to many, the cortical part is the white ſanders, and the medullary part, the yellow ſanders; but Garcias ſays, they are had from two different trees, though ſo much alike, that they cannot be diſtinguiſhed, except by the natives. This, however, we are better aſſured of, that the tree producing yellow ſanders, grows as high as our walnut trees, bearing leaves reſembling thoſe of the lentiſk, bluiſh flowers, and

and fruit like a cherry, green at firſt, but blackening as it ripens, and of a faintiſh taſte. The white ſanders, is the paler marrow of the ſame tree, which has not ſuch a fragrant ſmell, nor aromatic taſte, as the yellow ſanders, and is therefore leſs eſteemed. The red is the heart of another ſpecies of this tree, very ſolid and ponderous, but leſs odoriferous than either of the former.

But of all the curioſities of the vegetable kind to be found in China, none ſeems more ſurprizing than the tallow-tree, which produces a ſubſtance like our tallow, and ſerving for the ſame purpoſe. It is about the height of our cherry trees, its bark very ſmooth, its trunk ſhort, the head round and thick, the branches crooked, and the leaves ſhaped like a heart, of a ſhining red colour. The fruit is incloſed in a kind of pod, or cover, like a cheſnut, which opens when it is ripe, and diſcovers three white kernels, of the ſize and form of a ſmall nut, each having its peculiar capſula, and a little ſtone in the middle. When the fruit thus expoſes its white kernels, amongſt the red leaves, the mixture of colours makes the tree appear very beautiful: but the wonder is, that theſe kernels have all the qualities of tallow, its ſmell, colour, and conſiſtence; and accordingly the Chineſe make candles of them, which would doubtleſs be as good as ours in Europe, if they knew how to purify their vegetable tallow, as well as we do our animal. They prepare it for uſe by melting it down, and mixing a little oil with

with it, to render it ſofter and more pliant; but for want of better management, theſe candles yield a thicker ſmoke, and a dimmer light than ours. Theſe defects are owing, in ſome meaſure, to the wicks, which are not of cotton, but only a little rod, or ſwitch of dry ligh wood, covered with the pith of a ruſh wound round it, which being porous, ſerves to filtrate the tallow, attracted by the burning ſtick, and thus keeps the flame alive.

But beſides the fruits they have in common with us, there are others in China, which are not known in Europe. The moſt delicious of theſe is called Letchi, which is ſhaped like a muſcle-plumb, and about the ſame bigneſs. It has a rough thin rind, incloſing a pulp, of an exquiſite taſte, to which nothing we have in Europe is comparable; but it is not proper to eat much of it, being of ſo hot a nature, as to cauſe the ſkin to break out in pimples. The Chineſe dry it, whereby it becomes black, and wrinkled like our prunes, and ſo is preſerved, and eaten all the year. It is alſo uſed in tea, to which it gives an agreeable acid.

They have another ſmall fruit, called Lenyen or dragon's-eye, which grows on a large tree like our walnut, and has a ſmooth rind, of a greyiſh colour, but growing yellowiſh, as it ripens. This fruit has a pleaſant acid taſte, is very full of juice and reckoned an extraordinary cooler.

The Sezee, another fruit peculiar to China, grows almoſt in all parts of it; and of this, as of apples, there are ſeveral kinds. Thoſe in the ſouthern provinces, taſte much like ſugar, and melt in one's mouth; but in the northern provinces, they are larger and firmer, and more eaſily preſerved. The rind of the former is clear, ſmooth, tranſparent, and of a ſhining red colour, eſpecially when the fruit is ripe. Some are ſhaped like an egg, but uſually bigger; the ſeeds are black and flat, and the pulp is very watery, and almoſt liquid, ſo that they ſuck it all out at one end, leaving nothing but the ſkin. When they are dried like our figs, they become mealy; and in time there grows a ſugared cruſt upon them, of a delicious flavour. the Chineſe do not much regard the cultivation of this fruit, the tree growing naturally in almoſt any ſoil; but would they endeavour to bring it to perfection, by grafting, it might probably be much improved.

FOSSILS.

THE mountains of China abound with variety of metals and minerals, and amongſt the reſt they have gold and ſilver, but their gold mines are not ſuffered to be opened, and yet they have plenty of that commodity, by reaſon of the great quantities of it waſhed down by torrents from the mountains, in the rainy ſeaſons,

ſeaſons, and caught by fleeces, and other ſtrainers laid acroſs the water, or found among the ſand and mud of their rivers. Multitudes of people live wholly by this buſineſs of gathering gold, which is ſaid to be ſo pure as to need no refining. It is probable, they prohibit the working of their gold mines, that they may have a reſerve of that metal, in caſe of need, having at preſent more than enough for their own uſe, and a conſtant ſupply of it brought into their country, from Europe and other parts. They have alſo mines of copper, iron, quickſilver, and ſome lead; but this laſt metal is very ſcarce, as appears by our Engliſh lead finding ſo quick a market in China. Beſides theſe metals, they have ſeveral compound ones, the manner of mixing which they keep as a great ſecret; particularly that called tonbaga, or donbaga, which is of the colour of very pale braſs, or dull kind of tin, and to which they aſcribe ſeveral extraordinary virtues.

The mountains of Japan are likewiſe enriched with mines of gold and ſilver, which they yield not only in large quantities, but of an extraordinary fineneſs. The copper of Japan is excellent, but it is ſaid they ſpoil their braſs, by too much refining. They have alſo tin, lead, and iron, and quarries of ſeveral ſorts of marble; nor are they without ſtones of a more precious nature, but of ſuch we have ſpoken ſufficiently in the preceding chapters.

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In ſeveral parts of the province of Honan, in China, there is found a ſort of ſalt-earth, which being boiled and cryſtallized, makes a very good white ſalt; and in ſome places, the ground after rain, ſpews up a kind of froth, which is made into an excellent ſoap. The province of Quamſi is famed for a yellow earth, which taken inwardly, expels poiſon, and by outward application cures the bite of venomous creatures. There is alſo a ſort of earth of a fine red like vermilion; and another of a fine white, which are uſed as coſmetics, by the ladies. The ſame province furniſhes, in great abundance, that valuable earth, or clay, of which they make their porcelain, or China-ware, ſo much eſteemed and uſed amongſt us, being the moſt beautiful earthen manufacture in the world, though it has of late been well imitated in Europe. This earth is of two kinds; the one called kaulin, which is full of glittering corpuſcles; the other called petunſe, which is of a plain white, exceeding fine and ſoft to the touch. Both theſe earths, or rather ſtones, are found in quarries, twenty or thirty leagues from Kingteching, to which place they are brought down the river, by a vaſt number of little barks, continually employed in that ſervice. The petunſe is cut out of the mine, in form of bricks, and is much harder than the kaulin; which laſt, notwithſtanding, is what gives the ſtrength and firmneſs to the porcelain. The mines of the kaulin are deep, wherein it lies in glebes or clods; and the mountains, whence it is dug, are covered with a reddiſh earth.

VOL-

VOLCANOS CATARACTS, SPRINGS, &c.

IN China, there are ſeveral volcanos, or burning mountains, the moſt remarkable whereof is that called Linoſung, which is of a great height, and vomits fire, cinders, aſhes, and ſometimes torrents of ſulphur, and other minerals. In the great iſland of Niphon in Japan, there are no leſs than eight volcanos which at ſome particular times burn with incredible fury, and cauſe great diſorders and devaſtations round them, not unlike thoſe of Etna and Veſuvius.

Some of the rivers of China are very large, and remarkable for their cataracts, particularly that near the city of Hoaymingham, where the river falls down three precipices, one after another, with ſuch a roaring noiſe and violence, as is more eaſy to conceive than to deſcribe. nor are theſe cataracts the only curioſity that authors take notice of in their accounts of the rivers of China. Le Compté tells us of one that is always red like blood, and of another in the province of Suchuen, which glitters by night, occaſioned by the great number of precious ſtones in it, from whence it is ſtiled the pearl-river. A third is ſaid to turns blue in harveſt, and we are told of another in the province of Fokien, whoſe water is green and changes iron into copper. But the moſt ſurpriſing river

of all, is that which annually riſes on a certain day of the month, with ſuch a high tide before the city of Hangcheu, that multitudes of people flock thither from all parts to behold it. If we believe the Chineſe, who are themſelves extremely credulous, their country abounds with curioſities of this kind; but theſe accounts muſt be either abſolutely falſe, or miſrepreſented, though many ſuch phænomena, formerly thought miraculous, have been found upon examination, to be owing to natural cauſes.

Several ſprings in China are ſaid to ebb and flow regularly with the ſea, and others are ſo hot, that people frequently boil meat over the ſteam. There are cold and hot ſprings at a little diſtance from each other, particularly two near the city of Jungchan, which iſſue from a ſtone, cut in the form of a man's noſe, one of the noſtrils yielding hot water, and the other cold.

The mountains of Japan, as well as thoſe of China, afford great variety of medicinal waters, and thoſe of different degrees of heat, and variouſly impregnated with ſulphur, copper, alum, and other minerals. But the moſt remarkable of theſe ſprings, is that mentioned by Varenius, which is ſaid to be as hot as boiling oil, and to ſcorch and conſume every thing thrown into it, as cloth, wool, wood, &c. This ſurpriſing ſpring breaks forth only twice a day for the ſpace of an hour, during which time the ebullition is ſo fierce and ſtrong, that nothing can with-

ſtand it, the water burſting out with ſuch vehemence, as to lift up large ſtones laid over the mouth of the ſpring, and that with a great noiſe, ſometimes reſembling the exploſion of a cannon.

SECT III.

An Account of the moſt curious Arts, Manufactures &c. of the Chineſe *and* Japaneſe.

THE principal manufacture of China is that of ſilk, which employs a vaſt number of people; the beſt and fineſt ſilk is produced in the province of Chekiang; and, in ſuch vaſt quantities, that this ſingle province is able to ſupply all China, and the greateſt part of Europe. It is chiefly manufactured, however, in the province of Nanking, where the beſt workmen reſide, though the ſilks of Canton are valued by foreigners above all others. The ſort of ſilk moſt common amongſt the Chineſe is that called touanze, which is like our ſatin, and is plain or wrought with flowers, birds, trees, and houſes. Theſe figures are not raiſed upon the ground by a mixture of raw ſilk as is practiſed in Europe, which makes our work not ſo durable; but the ſilk is twiſted, and the flowers are diſtinguiſhed only by the different ſhade and colours. When they mix gold or ſilver with

with it, it reſembles our brocades or flowered ſilks, but their gold and ſilver thread is wrought in a manner peculiar to themſelves, the ſilk being ſpun and covered with little ſcrolls of paper gilt or ſilvered over, and not with flatted wire, as is the practice of our European artiſts. In ſummer they wear a kind of ſilk not ſo cloſe as our taffety, nor with ſo good a gloſs, but more ſubſtantial; it is ſometimes plain, and ſometimes powdered with large flowers, pierced through and cut like Engliſh lace. Beſides this they have another ſort of taffety, which is a very cloſe ſilk, and yet ſo very pliant that it does not wrinkle by preſſing or tumbling, and bears waſhing like linen, without loſing much of its beauty. They make various kinds of ſilks, beſides their gold tiſſues; and alſo velvet, pluſh, crapes, druggets, ſerges, and tammies: but though wool is very plentiful, eſpecially in the provinces of Xenſi and Xanſi, which abound with ſheep, yet they make very little cloth; ſo that our Engliſh cloth is much eſteemed amongſt them, and ſells dearer than their richeſt ſilks. They make blankets of their own wool, and a ſort of ruſſet cloth, of which their ſtudents have gowns for the winter.

The Chineſe likewiſe manufacture a great deal of cotton, and make a kind of linen of a plant called co, found only in the province of Fokien. It is a ſort of creeping ſhrub, probably a ſpecies of cotton, whoſe leaves are round, ſmooth, and green within, but whitiſh and downy on the outſide. Some of the ſtems grow

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as thick as one's finger, which are pliable, and downy like the leaves. When it is gathered, the bundles of it are put into water, as we do hemp; and the outer ſkin being peeled off and thrown away, they divide the inner, which is much more fine and delicate, into very ſlender filaments, which are manufactured into a ſort of linen, remarkable for its lightneſs and coolneſs; and accordingly people of faſhion wear veſts of it in ſummer.

The Japaneſe are particularly famous for their beautiful cabinets, and for their fine varniſh and lacquer, which is ſo valuable, that a quantity of the beſt ſort made in Japan will ſell for twenty times as much as an equal quantity of that made in Europe. The varniſh, according to the account given us in the Philoſophical Tranſactions, is made of turpentine mixed with a curious ſort of oil, and boiled to a proper conſiſtence. The lacquer or lac is the juice of a certain tree drawn from it by inciſion, and catched in pots faſtened to the tree for that purpoſe. At its firſt coming out it is of the colour and conſiſtence of cream, but, being expoſed to the air, the upper part of it ſoon turns black; and to make it all black, and fit for uſe, they put a quantity of it into a bowl, and ſtir it about with a piece of ſmooth iron for twenty or thirty hours, whereby it becomes black and thickens. With this they mix a quantity of very fine aſhes of burnt boughs, and having ſtirred it well together they lay it ſmooth with a bruſh on the wood they intend to lacquer.

quer. Then letting it dry in the ſun, it becomes harder than the wood itſelf; after which it is rubbed with a ſmooth ſtone and water till it be as ſmooth as glaſs, and then they lay on the varniſh. If they would have red or any other colour inſtead of black, they mix the colour in fine powder with the varniſh; and the ſmoother it is laid on the more beautiful it appears. When they paint or japan, as we call it, in gold or ſilver, &c. they draw with a fine pencil dipped in the varniſh, the flowers, birds, or other figures; and when it begins to dry they lay on the leaf gold or ſilver, and ſometimes pin-duſt, which being rubbed when thoroughly dry, the figures remain as drawn with the varniſh, and the reſt is a bright black ground. This lacquer is very pernicious to the hands and face, and ſometimes cauſes ſwellings or lameneſs, having an effect upon the japanners, in ſome reſpects like that which the compoſition of white lead and other ingredients has upon our painters.

The Chineſe paper is of divers kinds; ſome made of the rinds or barks of trees abounding in ſap, as the mulberry-tree and elm, but chiefly of the bamboo and cotton tree. In reality, almoſt every province has its ſeveral paper; that of Sechwen is made of hemp, that of Chekiang of wheat or rice ſtraw, that of Kyangnan of the ſkin found in the balls of ſilk-worms, that of Fokien of ſoft bamboo, and the bark of the mulberry-tree furniſhes the paper uſed in the northern provinces.

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As to papers made of the bark of trees, the manner of their preparation may be exemplified by that of the bamboo, a tree of the cane or reed kind, but much larger, ſmoother, harder, and ſtronger than any other ſpecies. The ſecond coat or ſkin of the bark, which is white and ſoft, is what is commonly uſed for paper. This they beat in fair water to a pulp, which they take up in very large moulds or frames, ſo that they have ſheets ten or twelve feet long, and ſometimes more. They are compleated by dipping them ſheet per ſheet in alum water, which ſerves inſtead of the ſize we make uſe of, and not only hinders the paper from imbibing the ink, but gives it a luſtre that makes it look as if it were ſilvered, or at leaſt varniſhed over. This ſort of paper is white, ſoft, cloſe, and without the leaſt roughneſs; though, being made of the bark of a tree, it cracks ſooner than European paper. Add to this, that it is more apt to take moiſture, that duſt ſticks to it, and that it is more liable to worms; to prevent which laſt inconveniency, the Chineſe often beat their books, and expoſe them to the ſun. Its thinneſs likewiſe makes it not ſo durable, ſo that they are under a frequent neceſſity of renewing their books by freſh impreſſions.

The paper of the bamboo, however, is not the beſt that is made in China, that of the cotton-ſhrub being the whiteſt and fineſt, and leaſt ſubject to the inconveniences above-mentioned. But the paper moſt commonly uſed in China is made of the inner rind of the tree called Chuku

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or Kuchu. This rind is taken of in long thin ſlips, which are blanched in water expoſed to the ſun, and then prepared and made into paper in the ſame manner as the bamboo.

In order to harden the ſheets and make them bear ink, they undergo the following operation called faning, from the Chineſe word fan, which ſignifies alum. Six ounces of fiſh-glue being cut ſmall and ſteeped in water, it is afterwards boiled and ſtirred all the time to prevent lumps; and the whole being reduced to a thin liquid ſubſtance, they melt and incorporate with it three quarters of a pound of calcined alum. Then this mixture is put into a wide baſon, and each ſheet being drawn nimbly through it by means of a ſtick they uſe for that purpoſe, the paper is hung up to dry; for which end they have a hollow wall, whoſe ſides are well whitened, through which it receives the heat of a neighbouring furnace; and, by the help of this ſort of ſtove, the ſheets are dried in a very little time.

The Chineſe or Indian ink, is not fluid as ours is, but ſolid like our mineral colours, though much lighter. It is made of lamp-black of ſeveral kinds, but the beſt is that obtained by burning hog's greaſe; and with the black they mix a ſort of oil to make it the ſmoother, adding ſome odorous ingredients to take away the rankneſs of the ſmell. When it is mixed into a paſte of a proper conſiſtence, they form it in moulds into little oblong ſticks or cakes

cakes, about a quarter of an inch thick, and adorned with the figures of dragons, birds, flowers, &c. which are ſo curiouſly cut in the wooden moulds, that we ſcarce engrave any thing finer upon metals. To uſe this ink they have a piece of poliſhed marble, made hollow ſo as to contain a little water, in which the ſtick of ink is rubbed till the water becomes of a ſufficient blackneſs. Thus they preſently have a fine ſhining ink, exceeding black, and of ſuch a nature that it never runs or ſpreads farther than the pencil, ſo that the letters are always ſmooth and evenly terminated. It is of great uſe in deſigning, becauſe the colour may be weakened or heightened at pleaſure; and there are many things which cannot be repreſented to the life without it.

There remains ſtill to be deſcribed that noble manufacture of porcelain or china-ware, which was a long time a myſtery in Europe, in ſpight of all the endeavours of the Jeſuit miſſionaries to penetrate into the ſecret. The veil however was at length removed by father d'Entrecolles, who in a letter from China to father Orry, in the year 1712, which was publiſhed in French, deſcribes the whole proceſs in all its circumſtances; an extract whereof cannot fail of being agreeable to the curious reader. It has been already obſerved, that two kinds of earth are uſed in the compoſition of porcelain, the one called kaulin, full of glittering particles, and the other petunſe, which is of a plain white, dug out of the mines in the ſhape of bricks, and

much harder than the former. This laſt ſort of earth is firſt broken and pounded into a coarſe powder with iron hammers, wrought either by the hand or by mills; and when by repeating the operation, the powder is rendered almoſt impalpable, they throw it into a large urn full of water, ſtirring it briſkly about with an iron inſtrument. Then letting the water reſt a while, they ſkim from the top a white ſubſtance formed there, of the thickneſs of four or five fingers, putting this ſcum or cream into another veſſel of water. They then ſtir the water of the firſt veſſel a ſecond time, and when it has ſettled they ſkim it again; and ſo alternately, till nothing remains at the bottom but the gravel of the petunſes, which are committed to the mill for another grinding. As to the ſecond urn, wherein the ſkimmings of the firſt were put, when the water is well ſettled and become quite clear, they pour it off, and fill a kind of moulds with the ſediment collected at the bottom, which, when almoſt dry, they take out and cut into ſquare pieces. The preparation of the kaulin is the ſame, only this being ſofter will diſſolve in the water without pounding.

A third ingredient in the compoſition of porcelain is an oil or varniſh drawn from the hard petunſes, which for this purpoſe undergo the ſame preparation as for making the ſquares, except that the ſediment of the ſecond veſſel is not put into moulds, but the fineſt part of it uſed to compoſe the oil, as they call it, which is a whitiſh liquid matter. With this matter they mix a powder

a powder made of a calcined mineral-ſtone called ſhekau, reſembling our alum, which gives the oil a good conſiſtence, but not ſo as to deſtroy its fluidity.

The oil of lime makes a fourth ingredient, the preparation whereof is more tedious than the former. They firſt ſprinkle water on quick lime, and thereby reduce it to a powder, on which they lay a bed of dry fern, and on the fern another of ſlaked lime, and thus alternately till they have a pile of a moderate height; which done, they ſet fire to the fern, and the whole being conſumed they ſprinkle the aſhes on new beds of fern, ſetting them on fire as before. This they repeat five or ſix times ſucceſſively, or even more; the oil being the better, the oftner the aſhes are burnt. A quantity of theſe aſhes are now put into a veſſel of water, and to every hundred weight of aſhes is added a pound of ſhekau, which diſſolves in the water. This mixture is well ſtirred together, then ſtands to ſettle, and after a farther preparation in another veſſel, the ſediment at the bottom, which is to be kept liquid, is what they call the oil of lime; eſteeming it as the ſoul of the former oil, and that which gives the porcelain all its luſture. Ten meaſures of the petunſe oil are uſually mixed with one of lime; and to have the mixture juſt, the two oils ſhould be of an equal thickneſs.

It is almoſt inconceivable what a number of perſons are employed in this manufacture,

there being ſcarce a piece of porcelain that does not paſs through more than ſixty hands before it is brought to perfection. The places they work in are vaſt incloſed yards, built round with ſheds and other conveniencies, as well as lodgings for the workmen. In mixing the two earths, regard is had to the fineneſs of the ware intended to be made, equal quantities of petunſe and kaulin being uſed for the fineſt porcelains, and one part of kaulin to three of petunſe for the coarſeſt. The hardeſt part of the work is the kneading and incorporating the two earths together, which is done in large baſons or pits well paved and cemented, wherein the workmen trample it continually with their feet, relieving one another, till the maſs be well mixed, grows hard and is fit for the potter. After the earth is taken out of the pits, it is kneaded by piece-meal with the hands, on large ſlates; and on this operation the goodneſs of the work very much depends, the leaſt heterogeneous body remaining in the maſs, or the leaſt vacuity, being enough to ſpoil the whole. The ſmalleſt grain of ſand, nay ſometimes a ſingle hair, will make the porcelane crack, warp, or ſplinter.

Smooth pieces of porcelain, ſuch as cups, ſaucers, diſhes, &c. are faſhioned with the wheel, like our earthern ware; but thoſe which are adorned with figures of animals, &c. in relievo, are formed in moulds, and finiſhed with the chiſſel. Indeed all the porcelains made in moulds are finiſhed by the hand, with

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ſeveral inſtruments proper to dig, ſmooth, poliſh, and touch up the ſtrokes that eſcape the mould; ſo that it is rather a work of ſculpture than of pottery. On ſome veſſels they add relievos ready made, as dragons, flowers, &c. and others have ornaments engraven with a kind of puncheons. The moulds are made of a yellow earth, well kneaded and beaten, and are ſold very dear, but they laſt a long time.

It is to be obſerved, that large veſſels of porcelain are made at twice, one half of the piece being raiſed on the wheel by three or four workmen, who hold it till it has acquired its figure; and the other half being formed in the ſame manner, they join them together with porcelain earth diſſolved in water, poliſhing the juncture with a kind of iron ſpatula. By the ſame means they join together ſeveral pieces of porcelain formed by moulds or by the hand; and alſo add handles, &c. to cups or other veſſels faſhioned by the wheel.

The many hands which a common tea-cup paſſes through before it be fit for the painter, may give us an idea of the number employed in other branches of this curious manufacture. The cup is begun by the potter, who has the management of the wheel, from whence it acquires its form, height, and diameter; but it comes out of his hands very imperfect, eſpecially towards the foot, which is only an unformed lump of earth, to be cut with the chiſſel when the cup is dry. From the wheel the cup

received by a ſecond workman, who forms its baſe; and a third takes it immediately from him, and applies it to a mould on a kind of lathe, to give it its true ſhape. A fourth workman poliſhes the cup with a chiſſel, eſpecially about the edge, and brings it to ſuch a thinneſs as is neceſſary to make it tranſparent; in doing which he moiſtens it from time to time, to prevent its breaking. After this another turns it gently on a mould to ſmooth its inſide, taking great care that it be done equally, leſt it ſhould warp, or any cavity be formed. Some workmen add relievos, others adorn the veſſels with the graver or puncheon, others add handles, &c. each keeping to his particular employment. Even the rounding and hollowing the foot of a cup on the inſide with a chiſſel, is the buſineſs of an artiſt who meddles with no other part. And this multiplicity of hands is ſo far from retarding the work, that it is found by experience to be carried on the faſter for it, as well as to be better performed; each workman, by a continual attention to the ſame thing, being more perfect and ready at it, than if he were frequently ſhifting from one operation to another.

The painting is none of the leaſt beauties of the porcelain, but it would be a conſiderable addition to it if the deſigns were more juſt and regular. Their flowers and landſkips indeed are ſometimes tolerable, and their borders prettily variegated, but their human figures are monſtrous, and look as if they were fond of devi-

ating from nature. This buſineſs is divided among a great many workmen in the ſame laboratory: one is employed in forming the coloured circle about the edges of the porcelain; a ſecond traces out flowers, which another paints; this is for landſkips only, that for birds and other animals, and a third for human figures. As to the colours of porcelain, they are various, both with reſpect to the ground, and the paintings. Some are ſimple, as all blues, which are thoſe uſually ſeen in Europe; others are made up of ſeveral tints, and others are heightened with gold.

The blue is made of lapis lazuli calcined, and reduced to an impalpable powder by beating it in porcelain mortars not varniſhed, with peſtles of the ſame matter. For red they put copperas in a covered crucible, in the lid whereof there is a little hole, which they heat with a reverberatory fire till the black ſmoke ceaſes to aſcend, and a fine red one ſucceeds it. By this proceſs a pound of copperas yields four ounces of red liquor, which is found at the bottom of the crucible, though the fineſt part is that which adheres to the lid and ſides. The powder of a white tranſparent flint, calcined like the lapis lazuli, is alſo an ingredient in ſeveral of their colours. The green, for inſtance, is made with three ounces of the ſcoria of beaten copper, half an ounce of powder of flint, and an ounce of ceruſe. For violet, they add white to the green already prepared; and for yellow they uſe ſeven drachms of white, and three

three of the copperas red. Moſt of theſe colours are mixed with gum-water for application; a little ſalt-petre, ſometimes ceruſe or copperas, but more uſually the latter, being firſt diſſolved in the water. When the veſſels are to be quite red, the colour is uſually applied with the common varniſh of the petunſe; but there is another ſort of red, called the blown red, becauſe applied by blowing through a pipe, one end whereof was covered with a fine gauze, on which the colour is ſpread, and by blowing at the other end the porcelain is ſprinkled all over with little ſtains, which are exceeding beautiful. This ſort of ware is very ſcarce, and of great value.

The black porcelain has likewiſe its beauty, whoſe colour has a leadiſh caſt, and is uſually heightened with gold. Three parts of lapis lazuli, with ſeven of the common oil of ſtone, make this colour, which is not applied till the porcelain be dry. Gold is prepared for application, by breaking it, and ſteeping it in water, till a thin gilded cloud riſes on the ſurface: it is uſed with gum-water, and to give it a body, they add three parts of ceruſe to thirty of gold.

There are ſeveral other kinds of porcelain, but ſuch as are rather for ornament and curioſity than for uſe. One of the prettieſt is the magic-porcelain, ſo called becauſe the paintings of the cups do not appear, unleſs they are filled with liquor. The ſecret of making theſe

magic porcelains, is ſaid to be almoſt loſt among the Chineſe, but our author informs us, they muſt be very thin; and the colours, which in other cups are applied on the outſide, are in theſe, applied on the inſide. When the colours are dry, they are covered over with a ſize made of the porcelain earth, and thus they are incloſed between two earthen laminæ. After the ſize is dry, they pour oil into the cup; and when it is ſaturated therewith, they return it to the wheel, to be made as thin and tranſparent as poſſible. The colours here uſed are always the fineſt, and the figures painted, are fiſhes, which are the moſt ſuitable, as they ſeem to ſwim in the liquor.

The painting of the ſeveral kinds of porcelain being finiſhed, and the colours dry, the next ſtep is to poliſh them, to prepare them to receive the oil or varniſh, whoſe compoſition has been already mentioned. This is done with a pencil of very fine feathers dipped in water, and bruſhed lightly over the porcelain, which takes off the leaſt roughneſs or inequalities. It is then fit to be varniſhed, in which operation a great deal of care and ſkill are requiſite, both that the varniſh be laid on equally, and not in two large quantities; for it is applied thicker or thinner, and ſeldom or oftener repeated, according to the fineneſs of the porcelain.

We now come to the laſt preparation of this brittle ware, viz. the baking it, for which purpoſe

poſe, the Chineſe have two kinds of ovens; large ones, for ſuch works as are only to be once baked, which is the common way: and ſmall ones, for thoſe that require a double baking. The large ovens are two fathoms deep, and almoſt four wide, and the ſides and roof are ſo thick, that one may lay ones hand on them, when the fire is at its height, without danger of burning. They are built in form of a tunnel, having a large aperture at top, to give vent to the ſmoke and flame, beſides four or five ſmall ones round them, which are opened or ſhut, to diminiſh or augment the heat, like the holes called regiſters, in the furnaces of chemiſts. Each oven is placed at the end of a long narrow paſſage, which ſerves inſtead of bellows, the wind being thus driven directly to the mouth of the furnace.

Every piece of porcelain of conſiderable value, is diſpoſed in the oven in a ſeparate caſe, or coffin; but as to tea-cups and ſuch ſmall veſſels, the ſame caſe ſerves for ſeveral. Theſe caſes are made of the ſame earth with the oven, and uſually of a cylindrical form, that the fire may communicate itſelf more equably to the porcelain incloſed. The bottom of each caſe is ſprinkled over with very fine ſand, covered with duſt of kaulin, that the ſand may not ſtick to the work; and care is taken that the porcelain do not touch the ſides of the caſes. In the larger caſes, which contain the ſmall pieces, they leave the middle vacant, becauſe the veſſels placed there would want the neceſſary heat;

and

and each of these little pieces is raised on a small mass of earth, covered with powder of kaulin. The porcelain is put into cases, lest the two violent effects of a naked fire should diminish its lustre; for it is owing to these thick coverings, that the beautiful complexion of the ware is not tarnished by the excessive heat.

As fast as the cases are filled, a workman ranges them in the furnace, forming them into piles or columns, whereof those in the middle are at least seven feet high. The cases of the finest porcelain are placed in the center, and the coarsest at the bottom; and in this manner, the whole cavity of the oven is filled with piles, except that part directly under the large aperture. These piles are placed near one another, and are so bound together at top, at bottom, and in the middle, so that the flame may have a free passage among them, and insinuate itself equally on all sides; in which lies a great part of the workman's art, and on which the goodness of the porcelain much depends. Another thing they observe is, never to fill an oven with all new cases, but half new, half old; the old ones being set at the top and bottom of the pile, and the new ones in the middle. These cases are yellow before they are burnt, but afterwards of a dark red.

When the oven is full, the door or mouth is walled up, only a little hole being left to throw in small pieces of wood to feed the fire. It is

then

then heated gradually for four and twenty hours; after which, two men, who relieve one another, throw in fuel without intermiſſion: and what ſeems very ſtrange to our author, the workmen thus employed about the furnaces, drink hot tea with ſalt diſſolved in it, to quench their thirſt. To know when the porcelain is ſufficiently baked, they open one of the little holes abovementioned, and with a pair of tongs, take off the covering from the top of one of the piles; and if theſe appear to be equally heated, and the colours of the porcelain uncovered have a noble luſtre, they diſcontinue the fire, and cloſe up the aperture left at the mouth of the furnace. After the fire is extinguiſhed, if the baking conſiſt of cups, and ſuch-like ſmall veſſels, they let them remain in the oven about twelve or fifteen hours; but if the porcelain be large, they defer opening it for two or three days: in which particular, the modern practice differs from the ancient, wherein all kinds of veſſels remained in the oven conſiderably longer.

There is another ſort of porcelain, which is twice painted, and twice baked, for which they have little ovens on purpoſe. Some of theſe are made of iron, and are very ſmall; others of a kind of bricks, of the ſame earth with the porcelain caſes. The largeſt of them, however, does not exceed five feet in height, and three in diameter, being built in the form of bee-hives. Round the oven, at about half a foot diſtance, is raiſed a ſhell of com-

common bricks, joined to the oven itſelf, by a kind of arch, which ſerves to ſtrengthen it; and four or five of theſe are uſually built at equal diſtances from each other. At the bottom of the ſhell, are holes to give air to the fire, and at the top, there is an aperture, which is covered when the porcelain is put into the oven. The ware here is not incloſed in coffins, as in the larger furnaces, the oven ſerving for that purpoſe, and being ſo exactly cloſed, that the veſſels receive no impreſſion of the fire, but what proceeds from the charcoal, diſpoſed in the hearth, at the bottom of the oven, and in the interval, between the oven and external ſhell.

To prepare the porcelain for this ſecond baking, it is varniſhed in the common manner; and having paſſed the great oven, it is then painted with various colours, after which, without any additional varniſhing, it is ranged in piles, in the little oven, the ſmall veſſels being placed upon the larger in form of pyramids. The intent of the ſecond baking is ſometimes to preſerve the colours the better, and to give them a ſort of relievo; but its more uſual deſign is to hide defective places with the colouring, though this artifice is not dificult to be diſvcoered.

SECT. IV.

Particular Diſcriptions of the moſt remarkable public Buildings, and other ſingular Productions of Art in China *and* Japan.

IT may be ſaid of the cities of China in general, that they are regularly and beautifully built; moſt of them are of a ſquare or quadrangular form, with the ſtreets in ſtrait lines, and interſecting each other at right angles. Some cities are of a circular or oval figure; but all are built with great ſymmetry and uniformity, and ſurrounded with high walls and turrets. As for the houſes and other buildings, eſpecially the public ones, they commonly wear the beſt ſide outwards, and, notwithſtanding the oddneſs of their taſte, appear beautiful enough; but the furniture of the inſide is not extraordinary, if we except their fine cabinets, ſcreens, and ſuch-like ornaments, with their China jars, and other pieces of that noble manufacture. The cuſtom of the country indeed renders ſumptuous furniture unneceſſary, for it is not uſual to admit either ſtrangers or friends into the inner part of their houſes, but to entertain them in a kind of ſeparate apartment, built ſomething like our ſummer houſes, which are very neat and convenient, and more or leſs adorned according to the quality of the owner, but cannot be called ſtately or magnificent, the roofs being only ſupported by wooden columns, and ge-

generally without a ceiling. Their beds, which are the fineſt part of their furniture, have embroidered curtains of taffety in ſummer, or ſome very thin ſilk, which ſerve to keep off the flies and gnats, but admit a free paſſage for the air; and in winter they have them of coarſe ſatin, with ſome kind of embroidery. They have no tapeſtry; but there is one ſort of ornament they are very fond of, viz. pieces of white ſilk hanging on the walls or wainſcot of their apartments, on which are written in a large character ſome moral ſentences, taken out of the writings of their celebrated philoſophers. Theſe ſhort ſentences are of ſuch eſteem among them, that they frequently have them on their fans, ſcreens, pictures, cabinets, and even upon their veſſels of porcelain. They have no chimneys in their rooms, but make uſe of ſtoves of charcoal to warm them in cold weather.

The Japaneſe affect a beautiful plainneſs and neatneſs in their buildings. Their houſes are moſtly of wood, though ſome of the better ſort have a ſtone foundation; and they are but one ſtory high, like thoſe of China, on account of the frequent hurricanes and earthquakes to which the country is ſubject. Theſe wooden buildings make their cities very liable to fires, which often make great devaſtations amongſt them; but many people have an apartment of ſtone ſeparate from the houſes, wherein they ſecure their moſt valuable effects, when they are threatened by ſuch diſaſters. Their floors

are covered with mats, which are always kept very clean; inſtead of which the richer ſort of people uſe ſilk ſtuffs, embroidered velvet, and cloth of gold. Their rooms are generally wainſcotted, and either curiouſly painted after their manner, or hung with pictures and painted paper neatly put together. The ground apartments are ſeparated from each other by partitions that are gilt and painted, and can be folded and removed like ſcreens; ſo that five or ſix of them may be eaſily thrown into one, as is uſual at their grand entertainments, or according as the buſineſs and company requires. The chief furniture of the houſes of the nobility is likewiſe rather elegant than ſumptuous, conſiſting of cabinets, ſcreens, beds, &c. of the beſt ſort, but they do not affect a ſhew of plate, jewels, and other coſtly ornaments. Porcelain veſſels, which the Japaneſe make very large and exquiſitely fine, are the chief embelliſhments of their rooms, excepting curious ſcymetars, and other kinds of armoury. What appears moſt ſplendid are the ceilings of their halls, ſtair-caſes, and ſummer-houſes, which are commonly of fine cedar, and beautifully gilt and painted. Before their houſes they have uſually a ſpacious court, with an aſcent of three or four ſteps, and a like deſcent behind, which leads into the gardens.

This account may ſuffice for the buildings of China and Japan in general; but ſome of their palaces, temples, and other ſtructures require a more particular deſcription. The imperial palace

lace at Pekin in China, is one of the greateſt curioſities in the whole empire. It is an oblong ſquare, about two miles in length, and one in breadth, ſurrounded by two ſtout walls, the outermoſt whereof is of a vaſt height and thickneſs, and covered within and without with a red kind of cement, and on the top with ranges of brick of a beautiful yellow. Each end has a magnificent gate, or more properly three gates, the middlemoſt of which is only opened for the emperor, but the other two are open for all comers and goers from morning till night. In the interval between the two walls are the apartments of the nobles and great officcers of ſtate, and of a great number of artificers conſtantly employed by the emperor; beſides the courts of judicature, and divers other offices and lodgings, all of them very large and ſtately. The innermoſt wall is ſurrounded by a deep ditch lined with ſtone, having drawbridges over it at the ſeveral gates, which are only open to the mandarins or lords in waiting, and to ſuch as bring a ticket from them, ſpecifying their buſineſs. Within this incloſure ſtands the imperial palace properly ſo called with its gardens, baths, pleaſure houſes, and whatever is magnificent and delightful, particularly an artificial lake well ſtored with fiſh, where the court ſometimes take the diverſion of fiſhing in their barges. There are nine large courts or ſquares within this wall, all which are ſurrounded with ſtately buildings, and we paſs through lofty arches from one court to another, each riſing higher than the former. In the in-

ner court of all, which is the nobleſt and higheſt, are the apartments of the emperor, and a grand ſeraglio of fine women, one of whom bears the title of empreſs, and the reſt are his concubines, or ladies and maids of honour. There is alſo a great number of women who have the management of the kitchen, cellar, &c. ſo that it is computed the whole number of the fair-ſex attending the imperial court amounts to above five thouſand, not to mention the eunuchs, who are likewiſe very numerous. This innermoſt quadrangle is aſcended by a flight of ſix ſteps on all ſides, and ſurrounded with a noble baluſtrade, adorned with lions, dragons, and other embelliſhments. The buildings of this ſquare are all ſtately and beautiful, but that which is the reſidence of the emperor far ſurpaſſes the reſt in ſplendor and magnificence. The fine porticoes ſupported by marble pillars, the glazed tiling, the curious carvings, gildings, and paintings, with which the apartments are adorned, the richneſs of the furniture, and the various pieces of architecture that make up the whole palace, all together have a ſurpriſing effect, and look every way becoming the majeſty of ſo great a monarch.

The palace of the Japaneſe emperor at Jeddo, the capital of his dominions, is not leſs magnificent and ſpacious than that of the emperor of China. It is ſurrounded by three high walls, and as many deep ditches, with large intervals between each; and the water is conveyed from one ditch to another by ſubterane-

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an pipes, ſo that they are always equally full. Theſe walls have eight or nine ſtately gates, oppoſite to each other, and between every two gates there is firſt a level piece of ground, and then an aſcent by ſteps into certain out-works, with another area beyond them, where a thouſand men may be drawn up on any emergency; ſo that the avenues to the imperial apartments are ſufficiently ſecured. In the ſpace between the firſt and ſecond wall live the petty kings, princes, the chief nobility, and governors of the provinces, in ſtately edifices, according to their rank and office; and the ornaments and furniture within are anſwerable to their external appearance; it being eſteemed a mark of reſpect to their monarch to ſtrive to out-do one another in the riches and ſplendor of their houſes and furniture. Between the ſecond and third wall live the emperor's relations and principal councellors, each in ſeparate apartments, or rather palaces, extremely grand and beautiful. In the center of all, within the third incloſure, are the imperial apartments, conſiſting of a great number of ſpacious halls, lodgings, offices, &c. for the emperor, his wives and attendants, all of them richly furniſhed. Theſe apartments form three rows of buildings, nine ſtories high, and formed on the top like pyramids, which are crowned with large gilded dolphins. The ceilings of the halls and chambers are plated with gold and ſilver, curiouſly raiſed and worked, and enriched with variety of precious ſtones. The hangings are of the richeſt ſilk, flowered with ſilver and gold, pearl, and other

embelliſhments. In the hall of audience, where the emperor receives homage or ambaſſadors, there is a throne of maſſy gold, ſet with large gems of ineſtimable value. The roof, which is lofty, is alſo plated with gold, richly enamelled with curious figures and landſkips, and ſupported by ſtately gilded columns. The gardens behind the apartments are laid out in an elegant taſte, and are moſt agreeably diverſified and adorned with terraſſes, canals, fiſh-ponds, water-works, and other ornaments. Nor ſhould we forget to mention the noble theatre in the area before this inner court, where plays are frequently acted for the diverſion of the Imperial family. Upon the whole, this amazing palace, or rather aſſemblage of palaces, which is five or ſix miles in circumference, looks like a populous and opulent city within itſelf, inhabited by princes and nobles, and by the eldeſt ſons of all the great men of the empire, who are educated there, and kept as pledges of their fathers fidelity. All theſe contribute to form a moſt ſplendid court, their dreſs, equipages, &c. being extremely beautiful, and ſumptuous.

To theſe we might add ſeveral other ſtately palaces both in China and Japan, but of all the public buildings of thoſe countries none are ſo magnificent and extravagantly adorned as many of their temples, which are lofty ſtructures, filled with an incredible number of idols, before which hang lamps continually burning. The

Chineſe

Chineſe reckon near five hundred of theſe temples of the firſt rank, beſides a prodigious number of others of leſs note, which are to be found in every town and village, and which are ſerved by about 350,000 bonzes or prieſts, who offer rice, wine, and other proviſions to their deities, and have generally large revenues for their ſubſiſtence. Near theſe temples are frequently cloyſters or monaſteries of thoſe who have devoted themſelves to religion, who undergo ſuch voluntary penances as they think will be moſt acceptable to their gods, living abſtemious lives, and bearing their mortification with the utmoſt reſolution.

The temples in Pekin are large and numerous, covered with ſhining tiles, which dazzle the eye of the ſpectator, and beſides thoſe in the city, there is a multitude of other fine ones in the country round about it, which afford a noble proſpect. Amongſt the reſt there is one of a pyramidical form, built upon the ſummit of a mountain formed by art, which is ſo rough and craggy that it looks quite frightful; and near the temple is a lofty tower of a circular form ten ſtories high, round the uppermoſt whereof hang fifty bells, which are ſo eaſily moved by every breath of wind that they keep a continual tinkling, and are heard at a great diſtance.

The temple of the ſun, which ſtands above half a mile from the eaſtern gate of Pekin, is a vaſt pile of buildings, ſurrounded with a wall

near

near a mile in circumference, within which are ſeveral large apartments, and in the midſt of them a ſpacious and lofty hall, whoſe roof is ſuſtained by fourſcore ſtately columns, adorned with gold and azure Hither the emperor repairs at the time of the winter ſolſtice, and offers ſacrifices of oxen, ſheep, goats, &c. to the ſun, the whole ceremony being performed with the greateſt appearance of humility and devotion.

At Meaco, formerly the capital of Japan, there is the moſt magnificent and ſumptuous temple in the whole empire. It is as long and as high as St. Paul's church in London, the dome excepted, and is all built of free-ſtone. It has an arched roof, ſupported by a great number of pillars; and has a vaſt many altars and idols in it, particularly a gigantic one of gilt copper. This temple ſtands upon the top of a hill, and on each ſide of the aſcent there are fifty ſtone pillars, ten paces diſtant from one another; on the tops of theſe are ſo many large lanthorns or lamps, which being lighted in the night time, make a pretty appearance.

The temples at Jeddo in Japan, are very numerous and ſplendid, particularly that of Amida, one of their principal deities, which is almoſt covered with gold. The ſtatue of that deity is on horſe-back, placed on a magnificent altar covered with plates of the ſame metal; and the houſings of the horſe are alſo embroidered with it, and enriched with pearls, diamonds,

monds, and other gems of immenſe value. Nothing can be more ugly and frightful than the figure in which he is repreſented; and indeed many other idols of theſe eaſtern nations are formed in the moſt monſtrous ſhapes imaginable.

Without the gates of ſeveral great cities in China there are lofty towers erected, which ſeem chiefly deſigned for ornament, and for taking a view of the adjacent country. The moſt remarkable of theſe towers is that of Nanking, called the Porcelain Tower, being covered from top to bottom with porcelain tiles beautifully painted. It is of an octangular figure, contains nine ſtories, and is about two hundred feet high, being raiſed on a very ſolid baſe of brick-work. The wall at the bottom is at leaſt twelve feet thick, and the building leſſens all the way to the top, which is terminated by a ſort of ſpire or pyramid, having a large golden ball or pine-apple on its ſummit. It is ſurrounded by a baluſtrade of rough marble, and has an aſcent of twelve ſteps to the firſt floor, from whence one may aſcend to the ninth ſtory by very narrow and incommodious ſtairs, each ſtep being ten inches deep. Between every ſtory there is a kind of pent-houſe or ſhed on the outſide of the tower, at each corner whereof are hung little bells, which being moved by the wind, make a pleaſant jingling. Each ſtory is formed by large pieces of timber, and boards laid acroſs them; the ceilings of the rooms are adorned with paintings, and the light

light is admitted through windows made of grates or lattices of wire. There are likewiſe abundance of niches in the wall, filled with images of their deities; and the variety of ornaments that embelliſhe the whole makes it perhaps the moſt beautiful ſtructure in the empire. It has now ſtood above three hundred years, and yet appears very little decayed.

Before we leave this ſubject, we ought to mention ſome of the bridges of China, which may be looked upon as wonderful pieces of art, ſcarce to be paralleled by any thing of the kind in Europe. The moſt ſurpriſing of theſe ſtructures is that which has obtained the name of the Flying Bridge, being built over a river from one mountain to another, and conſiſting only of one ſingle arch, five hundred cubits high, and four hundred long. There is another remarkable bridge in the province of Xanſi, at the conflux of two large rivers, which is built upon one hundred and thirty barges chained together, but ſo contrived as to admit veſſels to paſs through, after paying the uſual toll. This ſort of bridges is common in China; but they have another ſort built upon pillars without any arches, and ſome of theſe of a great length and breadth, particularly one in the province of Fokien, which is three hundred and ſixty perches long, and one and a half broad. It is entirely of white ſtone, ſupported by three hundred pillars, has a parapet on each ſide, and is adorned with the figures of lions at certain diſtances, and variety of other ſculptures.

tures. Some of their arched bridges are likewiſe of conſiderable length, breadth, and beauty, eſpecially that at Fuchew, the capital of Fokien, which is above a hundred and fifty perches long, and conſiſts of a hundred lofty arches. The parapets of this bridge are alſo adorned with the figures of lions and other animals.

One of the greateſt curioſities of the artificial kind which China affords, and which may be reckoned one of the nobleſt remains of antiquity now in the world, is that prodigious wall which was built by the Chineſe to prevent the frequent incurſions of the Tartars. This wall, Du Halde informs us, is higher and broader than the common walls of the cities of China, that is, about twenty-five feet in height, and broad enough for ſix horſemen to ride a-breaſt upon it; and is fortified all along with ſtrong ſquare towers at proper diſtances, to the number of three thouſand, which, in the time of the Chineſe monarchs, before the Tartars ſubdued the country, uſed to be guarded by a million of ſoldiers. The whole length of it, with all its windings, is computed near fifteen hundred miles, running all along the three northern provinces of Pekeli, Xanſi, and Xenſi, and erected on ſome places which ſeem inacceſſible, as well as over rivers, and ſuch marſhes and ſandy hollows as one would think incapable of admitting a foundation for ſo weighty a ſtructure. It is chiefly built of brick, and ſo ſtrongly cemented with an extraordinary kind

of mortar, that though it has now ſtood near 2000 years, expoſed to all winds and weathers, it is very little decayed, and the terraſs on the top ſeems ſtill as firm as ever. This amazing wall was built by the emperor Chihohamti, according to ſome authors, or Tſinſhiwhang, according to Du Halde, about two hundred years before our Saviour; and though of ſuch ſtupendous length and bulk, and carried on over mountains and valleys, was compleated within the ſpace of five years, if we may credit the Chineſe tradition.

The many long and deep canals which the Chineſe have made by dint of labour throughout moſt parts of the empire, either for the better watering of their grounds, or for the conveniency of conveying their merchandiſe from place to place, deſerve to be ranked among the rarities of the country. There is a large canal in almoſt every province, banked on each ſide with ſquare ſtones, and having its keys, ſluices, and bridges at convenient diſtances. The roads on the ſides of theſe canals are either paved, or made hard and ſound with gravel, and planted on each ſide with rows of ſhady trees. From theſe great canals, which are commonly ſtiled royal rivers, are cut ſeveral ſmaller, which are again branched out into rivulets, that generally end at ſome town or village. Sometimes they diſcharge themſelves into great lakes or ponds, out of which all the adjacent country is watered; ſo that theſe clear and plentiful ſtreams, embelliſhed with ſo many fine

fine bridges, bounded by ſuch neat and convenient banks, equally diſtributed into ſuch vaſt plains, covered with innumerable boats and barges, and crowned as it were, with a prodigious number of towns and cities, whoſe ditches they fill, and whoſe ſtreets they form, conſpire to make China the moſt fruitful and moſt beautiful country in the world.

To theſe may be added a whimſical kind of artificial curioſity peculiar to China, which, though of no uſe but to pleaſe the ſight, could not be made without immenſe labour and expence. Theſe are ſome of their mountains, which they have cut and formed into various ſhapes, ſo as to reſemble horſes, birds, &c. What the Chineſe ſay of their ſtructure is ſo filled with fables and ridiculous ſtories, that no regard is to be given to it; and theſe odd figures, though of ſuch prodigious bulk, plainly appear to be the work of art and labour, and neither owing to miracles nor magic, as the Chineſe would have us believe. Thoſe commonly called the mountains of the Five-horſes Heads, are the moſt wonderful of all, and could not be fabricated into ſuch ſhapes without a vaſt number of hands and inconceivable labour.

Some cities of China, particularly Pekin and Nanking, have been famous for the largeneſs of their bells, there being ſeven in Pekin, according to father Le Compte, each of which weighs 120,000 pounds.

The monſtrous coloſſus at Meaco, already mentioned, is reckoned among the rarities of that country. It is one of their principal idols or deities, is of gilt copper, and ſeated in a chair ſeventy feet high, no leſs than fifteen men, they ſay, can ſtand conveniently on its head; and its other parts being proportionable, one may from thence form a judgment of its enormous bulk. The Japaneſe indeed, as well as the Chineſe, are ſo addicted to idolatrous worſhip, that every place ſwarms with idols; they have them not only in their temples, but in other public and private buildings, and even in their highways, ſtreets, and markets. There is particularly, in the great city of Meaco above mentioned, a temple that may be looked upon as a Japaneſe pantheon, having no leſs than 3333 idols within its walls.

SECT. V.

Remarkable Laws and Cuſtoms of the Chineſe and Japaneſe; together with ſome Account of their Origin and Hiſtory.

MARRIAGE, or rather the bringing the ſexes together, is thought ſo much to the advantage of the ſtate in China, by multiplying the number of ſubjects, that no man can live ſingle twenty years, without being pointed

Hulett Sculp.

Two Colossal Statues with the Ruins of the Palace of Memnon.

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ed at ; but then the conſent of the parties is never aſked ; their parents or guardians enter into a contract, when both the boy and the girl are infants ; and when they come to years of maturity, the young gentleman ſends the lady a preſent, ſuitable to her quality ; a ſplendid cavalcade is made ; the bride is conveyed to the houſe of her ſpouſe, who never ſees her till ſhe enters his doors : then he unlocks the chair that brings her ; and if he does not like her, is at liberty to return her to her friends that moment, provided he is willing to loſe the preſents that have been made her, with which he may be ſaid to have purchaſed his wife : for he never receives any fortune with her. The lady, however, has not the like option ; if her huſband will keep her, ſhe is not allowed to retreat, how much ſoever he proves to be her averſion, and how many wives and concubines ſoever he may have beſides.

When the man has once received his wife, he cannot diſmiſs her, unleſs it be for adultery, or ſome notorious crime : but in theſe caſes he may ſell her, and purchaſe another with the money. As to the common people, they ſeem to be ſo much aſhamed of living ſingle, after the age the cuſtom of their country requires them to marry ; or they have ſuch a ſtrong propenſity towards matrimony, that they will ſometimes conſent to become ſlaves, on condition they may have a ſlave in a family for a wife, when they are not in circumſtances to purchaſe one.

The Chineſe women, being ſeldom ſuffered to appear in company either within doors or without, amuſe themſelves with painting, or needlework; or with birds, dogs, or other animals. They are perfectly diſqualified for dancing, being made cripples from their infancy, in order to make them little feet. They even walk with great difficulty, and in a very aukward manner.

The Chineſe no ſooner come to the years of maturity, than they make proviſions for their deaths. Every man furniſhes his houſe with a coffin, among other moveables, to put him in mind of mortality; and people of fortune encloſe a piece of land for a burying ground, where they erect a tomb, and a magnificent temple over it, to which they are brought when they die, though at never ſo great a diſtance from home. But ſuch tombs are generally erected in ſolitary places, or by the ſide of the highway, or at a diſtance from towns. None are ever buried within the walls of a city. The poor have a common burying place alſo, at ſome diſtance from the town they die in. Their coffins are made of a very laſting wood, ſeven or eight inches thick, which makes them appear much larger than ours; but they are of the ſame form, and finely japanned without, which very much preſerves the wood, and makes it the more durable, as well as beautiful. They endeavour to preſerve the remains of their dead as long as poſſible, from a ſuppoſition, it is ſaid, that as long

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as any part of the body is left, the ſoul continues about it.

The death of a man of fortune is no ſooner known to his relations, but they meet, and perfume the corps; dreſs it in the beſt cloaths; and having ſet it upright in a chair, his wives, children, and friends, ſucceſſively fall down before him, and lament their loſs. Three days after, a large room is hung with mourning, that is, with white linen; and the third day, the corps being put in a coffin, is laid there in ſtate, an altar erected before it, and an image of the deceaſed placed upon the altar. The relations then attend again, bringing lighted wax torches, and incenſe, which they burn, and proſtrate themſelves before the corpſe; the ſons then place themſelves on one ſide of the coffin, cloathed in white; and the wives and daughters ſtand on the other ſide behind a curtain, bewailing themſelves in the moſt moving ſtrains; the prieſt at the ſame time ſinging mournful hymns ſuitable to the occaſion. Several diſhes of meat are ſerved up every day, for ſome conſiderable time, and placed upon a table, and at night the prieſts divide the meat among them.

The coffin being very thick and cloſe, no offenſive ſmell can be perceived. The funeral is therefore frequently put off for ſeveral months, and ſometimes years; a paper being ſet up over the gate of the houſe, reciting the virtues and commendable qualities of the deceaſed

ceaſed: the ſons for ſeveral nights ſleeping upon mats around the coffin, and abſtaining from all fleſh meat, ſtrong liquors, and the commerce of women: nor muſt the ſon enter upon any office or employment for three years after the death of his father; and it is reckoned impious even to laugh, or take any manner of pleaſure during the time of mourning.

The ſon having invited his friends and relations to attend his father's corpſe to the grave, the proceſſion begins with thoſe who carry the images, or pictures of men, women, beaſts, and birds, attended with a great number of torches, trophies, triumphal chariots, pageants, and tables with ſeveral diſhes of meat, are carried before the corps. Then follow the prieſts with drums, muſic, and jingling bells; and next, the coffin, under a large canopy, is carried by twenty or thirty men; the ſons follow the coffin on foot, ſupporting themſelves with crutches; the women then advance in cloſe chairs, covered with white ſilk, rending the air with their cries; and beſides theſe, are other women, who are hired to make a mournful diſmal noiſe on theſe occaſions. The corpſe being depoſited in the tomb, an altar is erected before it, and lights left burning on the altar; the friends of the deceaſed viſiting the tomb at certain ſeaſons, proſtrating themſelves before it, with their faces to the ground. They burn incenſe, pour out wine, and offer diſhes of meat to the deceaſed, upon which the prieſts entertain themſelves when they are gone

gone. The character of the deceaſed being engraved on marble, is placed before the altar. Every man alſo has a tablet in his houſe, whereon are engraved the names of his great grandfather, his grand-father, and father, whom they worſhip, and their great men have temples erected to their memory, and a yearly ſacrifice offered to them.

During the firſt year of mourning, both men and women wear coarſe white linen, almoſt torn to rags; the ſecond year their cloaths are ſomething better, and the third year they are allowed to wear white ſilk. Three years a widow mourns for the death of a huſband; and the man one year for his wife, and for a brother.

The two chief religious ſects among the Chineſe, are the ſect of the learned, the diſciples of Confucius, who gave them many admirable precepts, and ſpeaks of god as a moſt pure and perfect ſpirit, the fountain and eſſence of all other beings; and the ſect, which worſhip the idol Fo, whom they ſtile the only god of the world. The Bonzes, who are the prieſts of this religion, aſſure the people, that there is a ſtate of rewards and puniſhments after this life; and preach up morality, as a qualification for a happy futurity. They inſiſt further, that it is not lawful to kill any living creature, or to drink ſtrong liquor; and hold the doctrine of tranſmigration. The Bonzes undergo the ſevereſt penances, by which they imagine they merit much, and can apply their merits to whom they pleaſe. In their temples is

an image of imortality, repreſenting a fat man ſitting croſs legged; another called the image of pleaſure, twenty feet high, and between them another image thirty feet high, with a crown on his head: beſides which, they have abundance of little images in their houſes, which they worſhip as well as Confucius, and their anceſtors. The ſun, moon, and ſtars alſo, are objects of their adoration.

The Tartars worſhip a living man, who is ſtiled the great lama, from whom his prieſts are called lamas. They call him alſo the eternal father. He is never publicly ſeen by daylight, but in his temple by the light of lamps. He ſits on a raiſed floor, dreſſed in the robes of a ſovereign prince, and thoſe that approach him fall proſtrate on the ground, kiſſing his feet; and his diciples believe he is immortal. The Tartar princes never think themſelves ſettled on their thrones, till they have obtained his bleſſing; and the emperor of China goes annually into Tartary to adore him.

Amongſt the laws of the Chineſe, there is none more religiouſly obſerved, than that of ſubmiſſion to parents. If a father complains that his ſon is diſobedient, there needs no farther evidence to put him to death. If a man ſhould deride or ſtrike a parent, the whole neighbourhood is immediately alarmed, and riſe to bring the criminal to juſtice: he is ſentenced to be cut in pieces, his houſes and lands deſtroyed, and to remain ſo to deter others from com-

committing the like crime. In treaſon, the children and family frequently ſuffer as well as the criminal. Murder is puniſhed with death, but for adultery and theft, when no violence is uſed, the offender comes off with a ſevere baſtinado.

Cauſes are generally decided, and ſentence given by a ſingle mandarin, who after a ſhort proceſs, and the examination of both parties, orders the perſon who has loſt the cauſe to be baſtinadoed, either for carrying on an unjuſt proſecution, or maintaining a cauſe contrary to equity. The next puniſhment is a collar made of two pieces of wood, hollowed in the middle, and ſmaller or greater according to the nature of the crime, this is put on the delinquent's neck, and ſealed with the ſeal of the tribunal, with a piece of paper denoting the nature of the crime, and the duration of the puniſhment. Theſe, except impriſonment, are all the puniſhments which the Chineſe laws permit the mandarins to inflict on criminals; they may indeed condemn to exile, but their ſentence muſt be examined by the ſupreme courts. The cappital puniſhments are ſtrangling. Mean and ignoble perſons are beheaded; for in China, the ſeperation of the head from the body is diſgraceful; on the contrary, perſons of quality are ſtrangled, which is a more honourable death; but if their crimes are very great, they are puniſhed like mean perſous, and ſometimes their heads are cut off, and hung on a tree in the highway. Rebels, traitors, the children who murder a parent, and

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the ſervants who murder their maſters, are cut in pieces.

The Chineſe eat all manner of fleſh, fiſh, and fowl, whether it be killed, or die in a ditch; but their moſt favouite diſh is horſe-fleſh, eſpecially among the Tartars. The meat is cut into little ſquare bits, before it is brought to table, for they uſe neither knives, forks, or ſpoons, but lade the meat into their mouths with two little chop-ſticks, which are not bigger than ſkewers. They ſit upon chairs at table as we do, contrary to the cuſtom of all the Eaſt. Every perſon has a little lackered board to himſelf at an entertainment, on which are ſet his meat and rice in china plates; and ſometimes their diſhes are of ſilver. Their liquor is chiefly tea; they have alſo a ſort of brown beer made of wheat and ſome ſpirits.

At entertainments, every one handles his little chop-ſticks, and carries the meat to his mouth, when the reſt of the company do. They drink alſo all at once; taking the cup in both hands, they firſt carry it as high as their heads, and then drink without ſpeaking a word. There ſtands a man to keep time, that one may not eat or drink before another; to begin firſt, or to make another wait, is reckoned extremely rude; when a freſh diſh appears, they flouriſh their chopſticks again, and having taken two or three mouthfulls, the maſter of the ceremonies makes a ſign for them to lay down their chop-ſticks, which they do exactly

in the same order they took them up; then the liquor is presented to them, of which every man drinks as much as he cares for; then they sit silent at table till the master of the ceremonies gives the sign to rise.

In the southern provinces of China, the inhabitants are tawney; but in the northern provinces, both their stature and complection are much mended. They have flat broad faces, black hair, little dark eyes, short noses, and thin beards, pulling out most of them with tweezers, instead of shaving; reserving only whiskers, and some long hairs on the bottom of their chins. The nail on the little finger of the left hand is suffered to grow to a great length beyond the finger, and scraped and polished with abundance of care, by people of condition; this being looked upon as one of the distinguishing marks of a gentleman in this part of the world. The Chinese were formerly proud of the hair of their heads, and used to tie it up as women do, in a roll, but the Tartar sovereigns have compelled them to shave their heads, leaving only one lock in the middle of the crown, over which they wear a cap shaped like a bell, which does not come so low as their ears; and therefore they carry a fan in their hands to screen them from the sun.

The men wear a vest with full long sleeves, which come down to their fingers ends; over the vest they wear a loose coat, shorter than

the veſt, with ſhort ſleeves; and when they viſit, or receive company, they have a gown thrown over all; they wear alſo ſhirts and breeches, or rather trowzers, which reach down half way their legs; theſe are made of ſatin quilted. They wear alſo ſilk boots, or buſkins, quilted an inch thick; and over the foot put on a ſlipper, with a thick ſole, for the boots have no ſoles. At their girdles they hang their pouch of tobacco, their pipe, which is braſs, their handkerchiefs, the little chopſticks they eat with, and their knife, for they have no pockets. In winter, people of diſtinction wear rich furs, lamb ſkins, or quilted cotton. Their ſcymetars or broad ſwords are worn on the left thigh, with the point bending forward.

Magiſtrates, and officers of ſtate, have ſome animal embroidered on their cloaths, either in gold or ſilver, which expreſſes the nature and dignity of their reſpective offices. The military men chuſe lions, dragons, and tigers; and the civil magiſtrates birds.

The features of the women are rather engaging except their ſhort, bottle noſes. Their complexions alſo are better than thoſe of the men, as they ſeldom go abroad; but what they eſteem their chief beauty are their little feet, which are cramped and bound up ſo hard in their infancy, that they never grow to the natural ſize; the foot of a woman being no bigger than that of a child of three years of age,

age, which makes them move very awkwardly. The ladies dreſs in their hair, though the men are obliged to cut off theirs. In the winter they wear a cawl or hood over their hair in the northern provinces; and on their bodies a veſt of red, blue, or green ſatin; and the elder ladies black. Over this they wear a looſe gown, with long wide ſleeves, which would reach the ground, if they were not held up. On their feet, they wear embroidered ſhoes with long picked toes.

The emperors of China never appear in public without that magnificence that may be neceſſary to attract the reſpect and veneration of the people; but in nothing do theſe monarchs diſplay greater ſplendor, than in the pomp with which they go to the temple to offer ſacrifices to heaven.

When perſons of quality pay viſits, when they are upon journies, or when they wait upon the emperor, they always appear with a grandeur that fills a ſtranger with aſtoniſhment. The mandarins, richly dreſſed, are carried in an open gilt ſedan, upon the ſhoulders of eight or ſixteen perſons, accompanied by all the officers of the tribunal, who ſurround them with umbrellas, and other marks of their dignity. Some walk two and two before them, bearing chains, rods, and eſcutcheons of varniſhed wood, upon which are, in large gold characters, all the titles of honour annexed to their places of truſt, with a baſon on which they

beat a certain number of ſtrokes, according to the rank they bear in the province. Other officers follow in the ſame order, and ſometimes four or five gentlemen on horſeback bring up the rear.

Thoſe that belong to the army commonly go on horſback; and if they are of conſiderable rank, appear at the head of twenty-five or thirty men, well mounted. The princes of the blood at Pekin, are preceded by four of their officers, and followed by a ſquadron of troops, that march without order: the domeſtics wear no liveries; but, according to the quality of their maſter, are dreſſed in black ſatin, or painted linen. Though their horſes are neither fine nor well managed, their trappings and harneſſes are very magnificent. The mandarins appear with the greateſt magnificence when they travel by water: their barges are of a prodigious ſize, adorned with carving, painting, gilding, and decorated with their arms, flags, and ſtreamers.

The emperor never marches, but at the head or in the midſt of an army, accompanied by all the lords of the court; then ſcarce any thing is to be ſeen but ſilks, gildings, and precious ſtones: the arms, the harneſs of the horſes, the umbrellas, the ſtreamers, and a thouſand other badges of royal dignity, or of the particular quality of the princes, ſparkle every where. He ſometimes goes into Tartary, to take the diverſion of hunting, where he

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is attended by forty thouſand men, and he is often attended by thirty or forty petty Tartarian princes, who come to pay him tribute; and on theſe occaſions the train, habits, and tents of the mandarins are ſurpriſingly magnificent.

In Japan, there is ſcarce any crime but is puniſhed with death, except the criminal be a prince or petty king, and even thoſe have only the privilege of diſpatching themſelves. In ſuch caſes, the emperor ſends them his orders only by a letter, which if not immediately complied with, the perſon is executed by an officer of juſtice, and put beſides to the moſt excruciating tortures; or if the offender is a prince of the royal blood, he is baniſhed to ſome barren iſland, where he is ſuffered to ſtarve. Other perſons, immediately upon conviction before a proper judge, are hurried to execution. Cheating of any kind, even at play; a lie, or prevarication before a magiſtrate, theft, though of the ſmalleſt kind; a breach of the peace, a blow, detraction, or other wrong to a perſon's good character, are all puniſhed with death; and it muſt be a very trifling injury, or be alleviated with ſome very favourable circumſtance, that is ſuffered to eſcape with a pecuniary puniſhment. As for corporal puniſhments ſhort of death, they are ſeldom uſed but by maſters on their ſlaves.

In crimes againſt the government, or againſt the public peace, not only the criminal him-

ſelf, but his parents, brethren, children, and even relations, are all put to death; and at one and the ſame hour, let them be at ever ſo great a diſtance from each other. For ſuch ſort of crimes, the offenders are generally executed, by ripping up their bowels. For theſts and robberies, they crucify the criminals with their heads downwards, when they are conſigned to a longer or ſhorter torture, according to the nature of the crime; ſo that in the moſt atrocious caſes, they are left to hang on the croſs till they expire, which may not happen in leſs than three, four, or perhaps more days. Criminals convicted of theft, are diſpatched by a dagger, or ſtrangling; and in crimes for open high-treaſon, not only all the relations, but the whole ward undergo the ſame dreadful fate; for in theſe caſes, the law ſuppoſes them all alike worthy of death, for ſuffering ſuch enemies to ſocieties to live among them. As for the female relations, they are generally treated with leſs ſeverity; for, except in caſes of high-treaſon, wives and daughters are only ſold for ſlaves.

The Japaneſe dreſs is commonly of ſilk or cotton; woollen cloth being ſcarcely known there. It conſiſts of a ſhort veſt, a long gown over it: and what is ſomewhat ſtrange, a cloak or mantle within doors, which they put off when they go abroad. They commonly go bare-headed, notwithſtanding their being ſhorn, and having only a lock of hair on their poll; but they generally make uſe of

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an umbrella, which the better ſort have carried over their heads by a ſervant. Every perſon, without diſtinction, wears a ſword or a dagger by his ſide, and a fan in his hand: and, contrary to the cuſtom of moſt nations, they wear black in their feſtivities, and white in their mournings. A ſtrange ſingularity runs through ſome other of their cuſtoms, ſuch as ſitting down, inſtead of riſing up, at the approach of a ſuperior; ſtanding upright, inſtead of proſtrating themſelves in their ſalutations; and ſeveral other peculiar cuſtoms.

The origin of the Chineſe nation is very uncertain and diſputed, for what their peculiar tradition ſays of it is exploded by men of ſenſe, ſince they pretend to an antiquity anterior, not only to the flood, but even to the creation. By ſuch of their records, however, as may be moſt depended on, and are univerſally agreed to by all learned men, this empire appears to have been governed by its own monarchs above four thouſand years, not by a continued ſeries of them in one family, but by a ſucceſſion of twenty-two families, which have given it in the whole two hundred and thirty-ſix princes. Father le Compte's arguments in favour of this account, makes it appear as probable as any human writings of that nature can do; and we may not unreaſonably conclude, that ſome of Noah's children or grandchildren, having penetrated through the eaſtern parts of Aſia, might ſettle in the moſt fertile and delightful part of China.

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The diſcovery of this remote country was made by the Portugueſe about the beginning of the ſixteenth century; for though it was indeed in ſome meaſure known to the ancients, yet its great diſtance from Europe, and the old Chineſe policy not to admit ſtrangers among them, made it impoſſible either for Greeks, Romans, or any other nation on this ſide the Ganges, to know any thing of the country, or its inhabitants, except what they might gueſs from the commodities brought from thence, which were very few in compariſon of thoſe at preſent exported. When the vaſt improvements in navigation had opened to the Europeans a new way of commerce with China, they were ſo greatly ſurprized at its opulence, and the excellent genius and politeneſs of its inhabitants, eſpecially conſidering them as a people that lived wholly within themſelves, and had received no helps or inſtructions from other nations, that the accounts firſt brought us concerning them, had more the air of romance than truth. Nor were we thoroughly acquainted with the ſtate of the Chineſe nation, till the Jeſuits, and other miſſionaries of the church of Rome, introduced themſelves into favour with the emperor and perſons of the higheſt rank, by their ſuperior ſkill in the mathematical ſciences.

What the Chineſe call their hiſtory, is little more than ſome ſhort minutes, containing the names

names of princes, who, perhaps never exiſted; though, if credit might be given to their own accounts, ſuch care has been taken to preſerve an impartial hiſtory of this country, as never was obſerved by any other people; for they relate that there are a certain number of regiſters, appointed by the government, to record all material tranſactions, and daily minute down the words and actions of their princes, with their reſpective remarks upon them; and that, without conſulting one another, they throw their ſeveral papers into an office which is never opened, while the reigning prince, or any of that family remain upon the throne: but when the crown devolves upon another houſe, the doors are opened, and all theſe records are put in order and examined, out of which the hiſtory of preceding reigns is compoſed, and the examples of their beſt princes recommended to their ſucceſſors, while the conduct of others is ſeverely cenſured. Thus their princes, like thoſe of Egypt anciently, undergo a kind of formal trial after their deaths, for the inſtruction of their ſucceſſors.

As moſt legiſlators and founders of kingdoms have apprehended it neceſſary to derive their origin and authority from heaven, to induce their ſubjects to ſubmit to their dominion, ſo the firſt monarch of China, Fohi, who is ſuppoſed to have lived about the time of the flood, pretended, that he was ſent from heaven to inſtruct and govern mankind. It was this prince, their

their hiſtories relate, that taught them cloathing, and to deſtinguiſh the ſexes by their habits: he is alſo ſaid to have firſt taught them their characters and muſic, and to have reigned 115 years. Fohi was ſucceeded by Chintong, who is ſaid to have taught his ſubjects huſbandry and phyſic; and his ſucceſſor, Hoangti, is ſaid to have taught them aſtronomy, the art of ſpinning and weaving ſilk, navigation, and the uſe of wheel carriages. To the next prince Chaohao, they aſcribe the dividing the country into provinces, and the inſtitution of civil government. And their fifth emperor, Tchuenhio, annexed the prieſthood to the crown, and prohibited all men to offer ſacrifices but himſelf, and ſuch as he deputed. Their ſeventh emperor gave his ſubjects the liberty of taking as many wives as they pleaſed, and had four himſelf. Their eighth emperor Tchi, acting tyrannically, was depoſed, and ſucceeded by his brother Yao, who is ſaid to have been a prince of uncommon virtue and piety: he made canals, drained the bogs, and cut the mountains into level ſquares, to make them fit for tillage. This monarch is ſaid to have diſinherited his ſon, becauſe he proved a vicious prince, and transferred the kingdom to Chun, a miniſter of great probity, who began a new race of kings about 2200 years before Chriſt.

Tcheaou, a tyrannical prince, who had a queen as cruel as himſelf, was depoſed by the people about 1000 years before the birth of Chriſt, and a prince of another family advanc-

ed

ed to the throne. In the reign of Ping Vang, about the year 777 before Chriſt, ſeveral of the tributary princes rebelled, and rendered themſelves independant of the emperor. From this reign it is, that their great philoſopher Confucius began his hiſtory of the civil wars of the vaſſal princes, which laſted near 200 years. Confucius, not finding his advice regarded, retired from court ſome time before he died. His works are now of ſuch authority, that the Chineſe appeal to them in all diſputes; and his poſterity are the only nobility in China, except the princes of the blood.

In the reign of Gin Tſong, about the year of Chriſt 1144, the Tartars made themſelves maſters of the northern provinces of China. In the reign of Tonan Tſong, the weſtern Tartars conquered part of China; and Chi Tſon their prince, made Pekin the ſeat of his empire; he cauſed a great canal to be cut, which runs from Canton almoſt to the city of Pekin, a thouſand miles in length; beſides a great many other canals for the convenience of tranſporting merchandiſe from one province to another. The emperor Tai Ting, the laſt of the Tartarian race, loſt his crown by attempting an alteration in religion; he countenanced the Lama's or Tartarian prieſts, which united the Chineſe againſt him. Their leader was a bonze, or Chineſe prieſt, who having driven the Tartars out of the country, mounted the throne about the year 1400.

In the year 1498, the Portugueſe, having doubled the Cape of Good-Hope, began a trade with China, and poſſeſſed themſelves of the iſland of Macao, about the year 1517; and had the ſole trade to China, for upwards of 100 years. In the mean time ſeveral Tartar nations being united under the king of Niuche, invaded the northern provinces of China; and a famine happening in ſome of the ſouthern provinces about the ſame time, occaſioned an inſurrection; and Lycungz, one of the chief of the malecontents, marched with a numerous army to Pekin, and laid ſiege to that city, which was betrayed to him by the eunuchs of the court. The emperor, and moſt of his family, ſeeing all reſiſtance vain, choſe to die by their own hands, rather than be made priſoners by the rebels; upon which Lycungz cauſed himſelf to be proclaimed emperor, and then advanced againſt Uſanguey, the imperial general, who, receiving advice of the uſurpation of Lycungz, made peace with the Tartars, who conſented to join him againſt the uſurper.

This obliged Lycungz to retire to Pekin; but not thinking himſelf ſtrong enough to defend that city againſt the united forces of Uſanguey and Xunchi, the Tartarian prince, he marched into the province of Xenſi, whither he was purſued by Uſanguey: but Xunchi, remaining at Pekin, in the mean while cauſed himſelf to be proclaimed emperor. However upon the return of Uſanguey, after the defeat of the rebels, Xunchi offered to divide the kingdom with him;

and Uſanguey, not being in a condition to force the Tartars to abandon Pekin, agreed to the propoſal, and retired to the provinces which were alotted him; but having augmented his army, he required Xunchi to quit the kingdom; and on his refuſal ſeveral battles were fought, in which Uſanguey was generally ſucceſsful; however being killed in a ſubſequent engagement, his army diſperſed, and the reſt of the provinces were reduced under the dominion of Xunchi the Tartar, about the year 1644; he did not however, long enjoy the throne, but died ſoon after the conqueſt, and was ſucceeded by his ſon Amavan, an infant of ſix years of age, leaving Amavan, his uncle, regent till his ſon ſhould come of age.

The regent diſcharged his truſt with ſuch fidelity, that every thing remained in peace during the minority. He did not think fit to make any alterations in the laws and cuſtoms of China, only compelled the Chineſe to cut off their hair, and take the Tartar habit, that it might not be diſcerned how inconſiderable a people the Tartars were when compared with the Chineſe; and he had the pleaſure of delivering up the empire to his nephew entire, both the Tartar and Chineſe princes ſubmitting to his government.

By this great revolution, the Chineſe ſeem rather to be gainers than loſers; their country is ſtill the ſeat of the government; Tartary is become a province to China; and they are exempted from the charge of maintaining armies upon the

frontiers, ſince the union. However, the Chineſe who were much averſe to the Tartar government, fled to the Philippines, Java, and other iſlands in the Indian ſeas, where they ſtill retain their former habits, and the cuſtom of wearing their hair: and the poſterity of Xunchi, the Tartar, remains upon the throne of China to this day.

Japan was not known, or even heard of in this part of the world, till the year 1542, when it was diſcovered accidentally, by Antonio de Mota, a Portugueſe commander, who was driven upon the coaſt of thoſe iſlands, in a voyage towards China: ſoon after that diſcovery, the Portugueſe began to trade with the Japaneſe, and had the ſole trade thither for upwards of ſixty years, when the Engliſh and Dutch arrived there. However the Portugueſe ſtill continued to trade thither, and having introduced their miſſionaries, made a great number of Popiſh proſelytes, until the year 1630, when, preaching up the Pope's ſupremacy, the Japaneſe government apprehended that they were in a conſpiracy againſt the ſtate; upon which an order was iſſued out for maſſacring or baniſhing all the Chriſtians; and a reſolution was taken never to admit any more of that religion into the country, except the Dutch, who probably inſinuated to the court of Japan, that the Portugueſe miſſionaries were about to abſolve the Japaneſe ſubjects from their allegiance, and perſuade them to acknowledge the Pope for their ſovereign. However that may be, no Europeans

ans are permittted to trade thither, but the Dutch; and even they are ſcarce ever ſuffered to come on ſhore, ſo that we are totally ignorant of the hiſtory of thoſe iſlands.

CHAP. V.

Of ASIATIC TARTARY.

SECT. I.

A general Account of Aſiatic Tartary.

ASIATIC Tartary, all except Chineſe Tartary, which has been deſcribed in the preceding chapter, is ſituated between 53 and 72 degrees of north latitude, and between 40 and 135 degrees of eaſt longitude. Its greateſt length from weſt to eaſt is 3000 miles, and its greateſt breadth from north to ſouth is 2000 miles. It is bounded by the frozen ocean on the north; by the pacific ocean on the eaſt; by China, India, Perſia, and the Caſpian ſea on the ſouth; and by European Ruſſia on the weſt.

The moſt general diviſions of Aſiatic Tartary, are thoſe five following: the north-eaſt diviſion, the ſouth-eaſt diviſion, the north-weſt diviſion, the ſouth-weſt diviſion, and the middle diviſion.

1. The north-eaſt diviſion comprehends the Kamtſchatka Tartars, whoſe chief city is Kamtſchatka, and the Jakutſkoi Tartars, whoſe chief city is Jakutſkoi. 2. The ſouth-eaſt diviſion comprehends the Bratſki Tartars, whoſe chief city is Bratſki, and the Thibet and Mongul Tartars, whoſe chief cities are Poion and Kudak. 3. The north-weſt diviſion comprehends Samoieda Tartary, the chief city of which is Mangaſia, and Oſtiac Tartary, the chief city of which is Koreſkoi. 4. The ſouth-weſt diviſion comprehends Circaſſian and Aſtracan Tartary, with their chief cities Terki and Aſtracan; and 5. The middle diviſion comprehends Siberia, the chief city of which is Tobolſki, and Kalmuc and Uſbec Tartary, with their chief cities Bochara and Samarcand.

The principal rivers of this vaſt country are the Wolga, the Tobol, the Obey, and the Irtis, each of which has been already mentioned; the Geneſa, or Jenſka, which riſes in Kalmuc Tartary, runs north, and falls into the Frozen Ocean; the Lena, which lies fartheſt eaſt, and running parallel to the Geneſa, falls into the ſame ocean; and the Argun, which divides the Ruſſian and Chineſe empires.

The

The air in the north of Tartary is exceſſive cold, the earth being covered with ſnow nine months in the year; the ſouthern provinces lie in a temperate climate, and would produce all manner of corn, and moſt other vegetables, if there were hands to cultivate the ſoil: but thoſe that inhabit it, lead a rambling vagrant life, driving great herds of cattle before them to ſuch parts of the country, where they can meet with the beſt paſture, and ſeldom remain long enough in a place to reap a crop of corn, if they ſhould plough and ſow the lands where they pitch their camps.

SECT. II.

A particular Account of the moſt curious natural Productions of Aſiatic Tartary, *in the Animal, Vegetable, and Foſſil Kingdoms; of remarkable Mountains or Volcanos; of Medicinal and other ſingular Springs; and of other natural Objects of Curioſity.*

ANIMALS, VEGETABLES, *and* FOSSILS.

THE principal riches of theſe countries conſiſt in the great number of wild beaſts with

which they abound; and among which are foxes, ſables, ſtone foxes, hares, marmottes, ermins, weaſels, wolves, rein-deer wild and tame, and ſtone-rams.

In Kamtſchatka, there is a ſort of field-rat, which build themſelves fine roomy neat neſts, ſpread with graſs, and divided into different apartments, where in ſummer they lay up proviſions againſt the winter, never touching their winter proviſions, ſo long as they can find any food in the fields. They change their habitations like the wandering Tartars; and ſometimes for a certain number of years, they all leave Kamtſchatka, and go to ſome other place: but this ſort of rat appears to be no other than the Keming.

In Kamtſchatka and other parts in the north of Tartary, while the ſnow is upon the ground they travel in ſledges drawn by dogs, which are eſteemed ſwifter and longer lived than any other dogs; and this may be attributed to their light ſimple food, which is fiſh. In the ſpring, every one lets his dogs at liberty, without taking any care about them: then they feed on what they can get in the fields, where they dig for the mice; and in the rivers, they catch fiſh. In the month of October, the dogs are called home by their reſpective maſters, who tie them up near their huts, till they loſe a great deal of their fat, that they may be lighter for the roads. Theſe dogs alſo give certain ſigns of an approaching ſtorm; for when they ſtop, if they ſcrape the ſnow with their

their feet, it is adviſeable, without loſs of time, to look out for ſome village, or other place of ſafety. And it is ſaid, the dogs here ſerve inſtead of ſheep, their ſkins being uſed for cloaths.

Among the remarkable birds of theſe countries, is a kind of cormorant found chiefly on the coaſt of Kamtſchatka: this is a ſea-bird, about the bigneſs of a gooſe, with a ſtreight reddiſh bill, about five inches long, and four noſtrils, ſuch as other cormorants have: it is webfooted, and appears frequently near the ſhore, but cannot ſtand upright upon dry ground; its feet being ſo near the tail that it is not able to balance its body: it flies ſlow, even when hungry, but when full of meat it cannot raiſe itſelf from the ground; theſe birds are killed by the natives principally for the ſake of their bladders, which theyuſe inſtead of corks to their nets.

Upon the coaſt of Kamtſchatka: are found the Procellaria or ſtorm birds, which are ſo called from prognoſticating ſtorms, by flying low, and ſkimming the ſea. Upon the coaſt of this country is alſo found the bird called Mergulus Marinus, with a bill as red as vermillion, and a white tuft upon its head.

In the ſeas of Kamtſchatka are found the ſea-lion and cat, which in their uſual ſtructure differ very little from the ſea horſe and ſea calf. The necks of theſe animals are bare, excepting a ſmall main of curled hair. They have a middle ſized head, ſhort ears, a ſnout ſhort and drawn

drawn up like a pug dog's; great teeth and webbed feet; they are moſt frequently about rocky ſhores, or rocks in the ſea, where they roar in a ſtrange frightful manner. Although in appearance and ſize this animal ſeems to be very dangerous, and marches with ſuch a fierce mien, that he looks like a true lion, yet he is ſuch a coward, that, at the ſight of a man, he hurries into the water; and when he is ſurprized aſleep, and awakened either by a loud cry or by a blow, he is in the utmoſt terror, endeavouring to make his eſcape: but when he finds that impoſſible, he will then attack his enemy with the greateſt fierceneſs, ſhaking his head, and roaring very terribly; and then the boldeſt muſt endeavour to ſave himſelf from his rage. When the natives of Kamtſchatka find theſe lions aſleep, they ſhoot poiſoned arrows at them, and get off as faſt as poſſible; and the wounded animal, unable to bear the pain ariſing from the ſalt-water in the poiſoned wound, runs himſelf aſhore, where he is killed with darts and arrows.

This game is ſo honourable among the natives, that the man who has killed moſt of theſe beaſts is eſteemed the greateſt hero; for which reaſon many engage in this dangerous hunting, not only for the fleſh, which is looked upon as very delicate, but rather for the honour that attends it. Of the ſkins of the ſea-lion, they make cords, ſhoe ſoles, and ſhoes. They are viviparous animals, and the females have two, three, and ſometimes four young ones.

The

The ſea-cat is about half the ſize of the ſea-lion, reſembling the ſeal in form; they have a ſnout larger than the ſea-lion, and larger teeth, with eyes like thoſe of a cow, ſhort ears, naked and black paws, and black hair mixed with grey. The male and female differ ſo much in form, that one who does not carefully examine them, would take them for diffent ſpecies of animals. The male has from eight to fifteen, and even ſometimes fifty females, whom he guards with ſuch jealouſy, that he does not allow any other to come near his miſtreſſes; and though many thouſands of them lie on the ſame ſhore, yet every family keeps apart, and ſometimes a family conſiſts of 120. The males who are old, and have no miſtreſſes, live apart; theſe ſometimes lie aſleep a whole month without nouriſhment, and are the fierceſt of all, attacking every thing that paſs them.

Among the different kinds of vegetables common to theſe countries with other parts of the world, the moſt uſeful wood is the larch-tree, which at Kamtſchatka in particular, ſerves for building the houſes and the ſorts, and even the boats and ſhips. Here are many larch-trees, which the inhabitants ſtrip of their bark while yet green, and cutting it in ſmall pieces like vermicelli, eat it with dryed caviare. They alſo ferment this bark with the juice or ſap of the birch, which makes an agreeable drink.

Their principal nouriſhment is from the nuts of a tree very common in this country, called the

the Slantza, which is of the cedar kind, only that it is much leſs, and creeps along the ground, and the nuts are alſo a powerful remedy againſt the ſcurvy. In Siberia and Kamtſchatka grows a root called Sarande, which ſerves the natives inſtead of grots, and which they alſo uſe as a confection in tarts and broths; and from which they diſtil ſpirits. The Kamtſchadales uſe alſo the French willows for food; for they boil it with their fiſh, and uſe the leaves as tea: but the greateſt uſe is made of its pith, which they put in ſeveral diſhes, and ſerve it up green as a deſert. This vegetable boiled, gives a thick ſweet wort, which, when fermented makes no diſagreeable drink, and from which they alſo diſtil a ſpirit; and it affords them likewiſe a very ſtrong venegar.

The Kamtſchadales feed alſo upon two plants, one called ſhelmina, and the other morcovai. The firſt of theſe plants is eaten in the ſpring, and the root of it is preſerved for winter, when it is boiled for a gruel. It has ſome reſemblance in taſte to the piſtachio nut.

The morcovai looks and taſtes like carrots, and is eaten green in the ſpring; and here is another root called kotkonia, which is eaten both freſh and dried with caviare: this root has alſo a delicious fruit, which muſt be eaten as ſoon as gathered. The biſtort grows in great plenty in Kamtſchatka, where the natives eat it with caviare freſh or dried; and in theſe

theſe countries is a vaſt number of medicinal, as well as poiſonous plants.

In Siberia, there are ſeveral gold and ſilver mines; and it abounds with iron and copper. Copper ore has been found in Kamtſchatka, together with native ſulphur. Here is alſo found tripoly and ochre, and a kind of purple-coloured earth; together with ſmall cherry-coloured cryſtals. This country alſo abounds with a ſort of foſſil called fluſſe; which the Ruſſians call native glaſs, and of which the inhabitants formerly made knives, axes, lancets, and darts. The inhabitants of Kamtſchatka find near the ſprings of rivers pellucid ſtones, which they uſe inſtead of flints, and are reckoned cornelians by the Ruſſians. Some ſmall pellucid ſtones, of a yellowiſh colour, like corals, are found on the banks of ſeveral rivers; and in many parts of this country are found great numbers of hyacinths. Amber is gathered near the ſea-coaſts; and in ſome hills is found a ſoft kind of bolus, of a fattiſh creamy taſte, which is uſed as an excellent remedy in fluxes.

REMARKABLE MOUNTAINS, *or* VOLCANOS, MEDICINAL SPRINGS *and* RIVERS.

THERE are ſeveral vulcanos or burning mountains in Siberia; and in Kamtſchatka there are three ſuch volcanos, which have for

for many years thrown out a continual ſmoke, but flame only at times. In 1737, there was a dreadful eruption of one of theſe mountains, which however laſted not longer than 24 hours, but was followed by a terrible earthquake, which overturned moſt of the huts in the country, ruined thouſands of the inhabitants, and deſtroyed many lives. It was alſo attended by a prodigiouscommotion of the waters; when the ſea, which roſe mountains high, poured in upon the land; and, being ſoon afterwards carried back, returned more violently than before; and the earthquake and commotion of the waters continued, with ſome intervals, for ſeveral months. There was an eruption of another of theſe mountains in the year 1739, which was followed by an earthquake; a third mountain burnt furiouſly from the year 1727 to 1731, and its laſt eruption was in 1737, which laſted a whole week.

In theſe countries, there are ſeveral hot ſprings, particularly in Kamtſchatka, where there are ſome which throw out their waters, like artificial water-works, about a foot or a foot and a half high, with a conſiderable noiſe; but there are two large wells, ſituated in a bottom, which merit particular mention. One is five, and the other three fathoms diameter; the firſt ſpring is one fathom and a half, and the other one fathom deep. In theſe ſprings the water boils up with white bubbles, with ſuch a noiſe, that ſcarce any other can be heard near them. The vapour is very thick; and the water is diſtinguiſhed from all others, by a black

black matter like Chineſe ink, which ſwims upon the top, and ſticks ſo to the fingers, that it is with difficulty waſhed off: the water itſelf is thick, and ſtinks like rotten eggs.

In Kamtſchatka, beſides ſprings, there are ſeveral rivers which never freeze; and there is ſcarce a river in this country, which has not ſome very large openings, even in the moſt ſevere froſts.

SECT. III.

Remarkable Laws, Cuſtoms, and Traditions, of the Aſiatic Tartars.

BEFORE the Ruſſians conquered Kamtſchatka, the natives lived in perfect freedom, having no chief, being ſubject to no law, nor paying any taxes; the old men, or thoſe who were remarkable for their bravery, bearing the principal authority in their villages, though none had any right to command, or inflict prniſhment. Their preſent manner of living is ſlovenly to the laſt degree; they never waſh their hands or face, nor cut their nails; they eat out of the ſame diſh with the dogs, and every thing about them ſtinks of fiſh; they never comb their heads, but men and women plait their hair in two locks, binding the

ends with ſmall ropes; thoſe that have not natural hair ſufficient wear falſe locks, ſometimes as much as will weigh ten pounds, which makes their hair look like a hay-cock: in a word, they are the naſtieſt nation on the earth.

Their chief happineſs conſiſts in idleneſs, and ſatisfying their natural luſts and appetites; theſe incline them to ſinging, dancing and relating love ſtories; theſe amuſements they will procure even at the hazard of their lives; for they think it more eligible to die, than to lead a life that is diſagreeable to them, which opinion frequently leads them to ſelf-murder. They are chiefly employed in providing what is abſolutely neceſſary for the preſent, and take no care for the future: they have no notion of riches, fame, or honour, therefore covetouſneſs, ambition, and pride, are unknown among them; on the other hand, they are careleſs, luſtful, and cruel, which occaſions frequent quarrels with their neighbours, not from a deſire of encreaſing their power, but from ſome other cauſes, ſuch as carrying off their proviſions, or their women.

Their trade is likewiſe not ſo much calculated for the acquiſition of riches, as for procuring the neceſſaries and conveniencies of life; they ſell their ſables and other ſkins; and in exchange receive cloaths made of deer ſkins, and other hides: among themſelves, they exchange what they abound with for what they

want, as dogs, boats, nets, and proviſions; and this kind of barter is carried on under a great ſhow of friendſhip; for when one wants any thing that another has, he goes freely to viſit him; and without any ceremony, makes known his wants, although perhaps he never had any acquaintance with that perſon before. The landlord, according to the cuſtom of the country, preſents his gueſt whatever he has occaſion for, and afterwards returns the viſit, and is received in the ſame manner.

They have filled every place they have any idea of with different ſpirits, which they worſhip and fear more than they do God; they offer them ſacrifices upon every occaſion; and ſome carry little idols about with them, or have them ſet up in their dwellings; but with regard to God, they not only neglect to worſhip him; but, in caſes of troubles and misfortunes, they curſe and blaſpheme him: their manners are inconceivably rude; and they never uſe any civil expreſſion or ſalutation; their diſcourſe betrays the moſt conſummate ignorance; they keep no account of their age, though they can count as far as one hundred; but this is very troubleſome to them, and without their fingers they cannot tell three: they reckon ten months in the year, ſome of which are longer, and ſome ſhorter; for they do not divide them by the changes of the moon, but by the order of particular occurrences that happen in thoſe regions; they commonly divide one year into two, ſo that winter is one

year and ſummer another; they do not diſtinguiſh the days by any particular appellation, nor form them into weeks or months, nor yet know how many days there are in the month or year; they mark their epochas by ſome remarkable event or other.

At the time of an eclipſe they carry fire out of their huts, and pray the luminary eclipſed to ſhine as formerly; they know only three conſtellations, the great bear, the pleiades, and the three ſtars in Orion, and have names only to the principal winds.

Their laws in general tend to procure ſatisfaction to the injured party: if any perſon kills another, he is to be put to death by the relations of the perſon ſlain: they burn the hands of perſons who have been frequently caught in theft; but for the firſt offence, the thief muſt reſtore what he has ſtolen, and live in ſolitude the reſt of his days, without hopes of any aſſiſtance from others. They have a notion, that they can puniſh an undiſcovered theft, by burning the ſinews of a buck in a public meeting, with many ceremonies of conjuration; believing that, as thoſe ſinews are contracted by the fire, ſo the thief will have all his limbs contracted. They never have any diſputes about their lands or their huts, every one having land and water more than is ſufficient for his wants.

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The habitations of the Kamtſchadales conſiſt of huts, which are ſurrounded by an earthen wall or paliſado, and are built in the manner following: a hole is dug in the earth, about five feet deep, the breadth and length of which is proportioned to the number of perſons deſigned to live in it. In the middle of this hole are planted four thick wooden pillars; over theſe balks are laid, upon which the roof or ceiling is formed: and in the middle a ſquare opening is left, which ſerves for a window and chimney; this is covered with graſs and earth, ſo that the outward appearance is like a round hillock; but within the huts are of an oblong ſquare form; the fire-place is in one of the long ſides of the ſquare: between the pillars round the walls are benches, upon which each family lies ſeparately, but on that ſide oppoſite to the fire there are no benches, it being deſigned for the kitchen furniture, in which they dreſs victuals for themſelves and their dogs. The wall, of theſe huts are adorned with mats made of graſs.

The entrance into the huts is by ladders, commonly placed near the fire hearth, and there the Kamtſchadales live all the winter; but towards ſummer, they remove into other huts, which ſerve them alſo for magazines; when they return from fiſhing and hunting in the harveſt, they leave their dry fiſh there, till they can fetch them in the winter, and this

without any guard, only taking away the ladders.

The women in Kamtſchatka are the only taylors and ſhoemakers; for they cut out and make the cloaths, ſhoes, and ſtockings, and dreſs the ſkins of which they are made; the women are likewiſe employed in conjuration, and curing the ſick. The cloaths of the Kamtſchadales are, for the moſt part, made of the ſkins of deer, dogs, ſeveral ſea and land animals, and even of the ſkins of birds; frequently joining thoſe of different animals in the ſame garment; they make the upper garments in two faſhions, ſometimes cutting the ſkirts all of an equal length, and ſometimes leaving them long behind in form of a train; they are made of deer ſkins, with wide ſleeves, of a length to come down below the knee, and there is a hood or cawl behind, which in bad weather they put over their heads; they commonly wear two coats, the under coat with the hair ſide inwards, the other ſide being dyed with alder, and the upper with the hair outward. The dreſs of the men and women differs only in their under cloathing, and the covering of their feet and legs; the women have an under garment which they commonly wear at home, conſiſting of breeches and waiſtcoat ſewed together.

In travelling with dogs, the Kamtſchadales uſe thoſe that are gelded, and generally yoke four to a ſledge; they drive their ſledges ſitting

ting on the right ſide, with their feet hanging down; and it would be looked upon as a diſgrace for any one to ſit in the ſledge, or to make uſe of any perſon to drive them, nobody doing this but the women. From the make of their ſledges a man is obliged to keep the exacteſt balance, otherwiſe he is liable, from the height and narrowneſs of them, to be overturned, and in a rugged road, this would be very dangerous, as the dogs never ſtop till they come to ſome houſe, or are entangled with ſomething upon the road. After a deep ſnow there is no travelling with dogs, till a road is made, which is effected by a man going before upon ſnow ſhoes, which are made with two thin boards ſeparated in the middle, and bound together at the ends with thongs; the fore part is bent upwards, and a place is made to ſlip in the foot. The greateſt danger is when a ſtorm of driven ſnow ſurpriſes them: then they are obliged with all haſte to ſeek the ſhelter of ſome wood, where they ſtay as long as the tempeſt laſts, which is ſometimes a whole week; they hide themſelves commonly in caves or holes of the earth, wrapped in their furs; and when thus covered, they move or turn with the greateſt caution, leaſt they ſhould throw off the ſnow, for under that they lie as warm as in their common huts; they are however ſometimes ſmothered with ſnow, and ſometimes frozen to death.

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The Kamtſchadales have ſuch frequent quarrels among themſelves, that ſeldom a year paſſes without one village or other being entirely ruined, the end of theſe wars is to take priſoners; ſometimes the neighbouring villages go to war for quarrels that happen among the children, or for neglecting to invite each other to their entertainments: theſe wars are carried on more by ſtratagem than bravery; for their manner of attack is, by ſtealing in the night-time into the enemy's village, and ſurpriſing the inhabitants, by ſecuring the mouths of the huts, and ſuffering nobody to come out, but ſuch as ſubmit to be bound; their arms are bows and arrows, and ſpears: their bow-ſtrings are the blood-veſſels of the whale; their arrows are pointed with flint-ſtones or bone, and are all poiſoned; their ſpears are likewiſe pointed with flint.

When a Kamtſchadale reſolves to marry, he looks out for a bride in ſome of the neighbouring villages, ſeldom in his own; and when he finds one to his mind, he diſcovers his inclination to her parents, deſiring that he may have the liberty of ſerving them for ſome time: this permiſſion he eaſily obtains, and during his ſervice, he ſhows an uncommon zeal, in order to ſatisfy them of what he can do. After having thus ſerved, he deſires liberty to ſeize his bride; and if he has happened to pleaſe the parents, his bride, and her relations, this is preſently granted: but if they ſhould diſapprove of the match, they give him

ſome

ſome ſmall reward for his ſervices, and he departs

When a bridegroom obtains the liberty of ſeizing his bride, he watches every opportunity of finding her alone, or in the company of a few perſons; for during this time all the women in the village are obliged to protect her; beſides, ſhe has two or three different coats, and is ſwaddled round with fiſh nets and ſtraps; ſo that ſhe has little more motion than a ſtatue. If the bridegroom happens to find her alone, or in company with a few, he throws himſelf upon her, and begins to tear off her cloaths, nets, and ſtraps; for ſtripping the bride naked, conſtitutes the ceremony of marriage. This is not always an eaſy taſk; for though ſhe herſelf makes but ſmall reſiſtance, and indeed ſhe can make but little; yet, if there happen to be many women near, they all fall upon the bridegroom without mercy, beating him, dragging him by the hair, ſcratching his face, and uſing every other method they can think of to prevent him from accompliſhing his deſign. If the bridegroom is ſo happy as to obtain his wiſh, he immediately runs from her, and the bride, as a proof of her being conquered, calls him back, with a ſoft and tender voice: thus the marriage is concluded. This victory is ſeldom obtained at once; but ſometimes the conteſt laſts a whole year; and after every attempt, the bridegroom is obliged to take ſome time

to recover ſtrength, and to cure the wounds he has received.

As ſoon as the above ceremony is over, the bridegroom is at liberty the next night to go to his bride's bed; and the day following, without any ceremony, he carries her off to his own village. After ſome time, the bride and bridegroom return to the bride's relations, when the marriage feaſt is celebrated.

The above mentioned ceremonies only relate to a firſt marriage: for in the marriage of widows, the man and woman's agreement is ſufficient, but he muſt not take her to himſelf, before her ſins are taken away; this can only be done by ſome ſtranger's firſt lying with her for once; but as this taking off of ſin, is looked upon by the Kamtſchadales as very diſhonourable for the man, it was formerly difficult to find out one to undertake it, ſo that the widows were at a great loſs, before the Ruſſian Coſſacks came amongſt them, ſince which time, they have been in no want of ſtrangers to take away their ſins.

Marriage is forbidden only between father and daughter, and mother and ſon; their divorce conſiſts only in a man's ſeparating beds from his wife; in ſuch caſes the man immediately marries another wife, and the woman accepts of another huſband, without any farther ceremony. A Kamtſchadale has two or three wives, with whom he lies by turns; ſometimes he keeps them all in one hut, and ſometimes they live in different huts.

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The Kamtſchadales, inſtead of burning or burying their dead, bind a ſtrap round the neck of the corps, draw it out of the hut, and deliver it for food to their dogs, from a perſuaſion that thoſe who are eaten by dogs will drive fine dogs in the other world; however, when any one dies in the hut, they frequently remove to ſome other place, without carrying the corps with them. They throw away the cloaths of the deceaſed, from an opinion, that whoever wears the cloaths of one that is dead, will certainly come to an untimely end. After touching a dead body, they uſe the following purification. Going to the wood, they cut ſome rods, of which they make a ring, and creeping through it twice, they carry it back to the wood, and throw it towards the weſt. Thoſe who drag out the body are obliged to catch two birds, of one ſort or other, one of which they burn, and eat the other, with the whole family. The purification is performed on the ſame day: for they muſt not enter any other hut, nor will any perſon enter theirs, before they are purified. In commemoration of the dead, the whole family dine upon a fiſh, the fins of which they burn in the fire.

North of the Kamtſchadales is the nation of the Koreki, who are divided into the wandering Koreki, and the fixed Koreki, who are ſettled in one place, and live in huts in the earth, like the Kamtſchadales. The wandering Koreki are extremely jealous of their wives, whom they ſometimes kill, only upon ſuſpicion: on the

the contrary, the fixed Koreki, as well as the Tchukotſkoi, another nation north of the Koreki, when they entertain a friend, put him to bed with their wives and daughters, and a refuſal of this civility, they conſider as the greateſt affront, and are even capable of murdering a man for ſuch a contempt. The wives therefore of the fixed Koreki endeavour to adorn themſelves as much as poſſible, painting their faces, wearing fine cloaths. and uſing various means to ſet off their perſons; and in their huts they ſit quite naked, even in the company of ſtrangers; whereas the wives of the wandering Koreki go as dirty and ragged as poſſible, to avoid the jealouſy of their huſbands, who ſay, that a wife has no occaſion to adorn herſelf, except to gain the affections of a ſtranger, as her huſband loves her without ſuch ornaments,

The wandering Koreki ſojourn with their herds of rein deer, in ſuch places as abound with moſs, or other proviſion for the deer; their manner of living, eſpecially in the winter time, is ſtill more diſagreeable than that of the Kamtſchadales: for being frequently obliged to change their habitations, the huts which they come to are all frozen; and when they begin to thaw them by the fires, which are uſually made of green ſhrubs or graſs, there ariſes a ſmoke ſo pernicious to the eyes, that it is enough to blind a perſon entirely in one day. They feed upon the fleſh of the rein deer, with which they very much abound, ſome of them having from ten to twenty thouſand deer, nay,

nay, one of their chiefs was ſaid to have a hundred thouſand; but yet they are ſo penurious, that they will ſcarcely kill any for their own uſe, ſatisfying themſelves with ſuch as die naturally, or are killed by the wolves: they never milk the rein deer, nor do they know any uſe of milk.

The wandering Koreki ſeem to have no notion of religion, and have ſcarce any idea of a God; they ſeem however to apprehend evil ſpirits, which, according to their opinion, inhabit the rivers and woods; the ſettled Koreki have the ſame notion of a God as the Kamtſchadales.

They burn their dead in the following manner. Having firſt dreſſed them in their fineſt apparel, they draw them with thoſe deer which they think were their favourites, to the place where they are to be burnt. Here is erected a great pile of wood, into which are thrown the arms of the deceaſed, and ſome houſhold furniture, ſuch as their ſpear, quiver, and arrows, knives, hatchets, kettles, &c. Then they ſet fire to the pile, and while it is burning, kill the deer that drew the corps, upon which they feaſt, and throw the fragments into the fire.

CHAP. VI.

Of the INDIAN ISLANDS.

SECT. I.

A general Account of the Indian Iſlands.

THE Indian and oriental iſlands, beſides thoſe of Japan already deſcribed, are 1. The Ladrone iſlands. 2. The Philippine iſlands. 3. The Moluccas. 4. The Banda iſlands. 5. The iſlands of Celebes, Gilolo, Ceram, &c. which ſurround the Moluccas and Banda iſlands. 6. The Sunda iſlands of Borneo, Sumatra, and Java; and thoſe that lie to the eaſtward of Java, Bally, Lomboe, Timor, &c. 7. The Nicobar. 8. The Andaman iſlands. 9. The Maldiva iſlands; and 10. The iſland of Ceylon.

1. The Ladrone iſlands are ſituated in the Pacific Ocean, in about 140 degrees of eaſt longitude, and between 12 and 24 degrees of north latitude: the chief of theſe iſlands are Guam, with its chief city of the ſame name, and

and the iſlands of Tinian, Maban, Pagan, and Gregan.

2. The Philippine iſlands are ſituated in the Chineſe ſea, between 114 and 131 degrees of eaſt longitude, and between 5 and 10 degrees of north latitude; and conſiſts of the iſland of Luconia, or Manila, the chief city of which is Manila; the iſlands of Tandoga, or Samar, Maſbate, Mindora, Luban, Paragoa, Panay, Leyte, Bohol, Sibu, Sogbu, Negros, St. John, Xoilo, and Mindanao, with its chief city of the ſame name.

3. The Moluccas, or Clove iſlands, are ſituated ſouth of the Philippine iſlands, in 125 degrees of eaſt longitude, and between 1 degree ſouth, and 2 degrees north latitude, and conſiſt of the iſland of Bachiam, the iſland of Machiam, the chief city of which is Fort Orange; the iſland of Motyr, the iſland of Ternate, the chief city of which is Victoria Fort, and the iſland of Tydor.

4. The Banda or Nutmeg iſlands are ſituated ſouth of the Malucca iſlands, between 127 and 128 degrees of eaſt longitude, and between 4 and 5 degrees of ſouth latitude, and conſiſt of the iſland of Lantor, with its chief city of the ſame name; the iſlands of Poleron, and Roſinging, the iſland of Pooloway, the chief city of which is Revenge, and the iſland of Gonapi, the chief city of which is Naſſau Fort.

5. The chief of thoſe iſlands which ſurround the Moluccas and Banda iſlands, in the Indian ocean, under or near the equator, are Amboyna, Celebes, or Macaſſar, the chief city of which is Macaſſar, Gilolo, with its chief city of the ſame name, Ceram, the chief city of which is Ambay, and the iſlands of Ceram, Flores, Timor, Miſacomby, Bouton, Bouro, &c.

6. The Sunda iſlands, ſituated in the Indian ocean, between 93 and 120 degrees of eaſt longitude, and between 8 degrees north, and 8 degrees ſouth latitude, conſiſt of the iſland of Borneo, with its chief city of the ſame name; the iſland of Sumatra, the chief cities of which are Achen, and Bencoolen; the iſland of Java, the chief cities of which are Batavia and Bantam, the iſland of Bally, with its chief city of the ſame name; the iſland of Lamboe, and the iſland of Banca, with its chief city of the ſame name.

7. The Nicobar iſlands, ſituated in 93 degrees eaſt longitude, and between 6 and 10 degrees of north latitude, conſiſt of the iſland of Nicobar proper, with its chief city of the ſame name, the iſland of Canicubar, with its chief city of the ſame name, and ſeveral other inconſiderable iſlands.

8. The Andaman iſlands, ſituated in the bay of Bengal, in 93 degrees of eaſt longitude, and between 10 and 15 degrees of north lati-

latitude, conſiſt of Andaman proper, Low Iſland, &c.

9. The Maldiva iſlands, ſituated ſouth of the Hither India, between the equator and 7 degrees of north latitude, conſiſt of the iſlands of Caridow, Canduſal, &c.

10. The iſland of Ceylon, or the Cinnamon Iſland, is ſituated ſouth-eaſt of the Hither India, between 78 and 82 degrees of eaſt longitude, and between 6 and 10 degrees of north latitude: its chief city is Candy.

SECT. II.

A particular Account of the moſt curious natural Productions of the Indian Iſlands, *in the Animal, Vegetable, and Foſſil Kingdoms; of remarkable Mountains or Volcanoes; of medicinal and other ſingular Springs; and of other natural Objects of Curioſity.*

ANIMALS.

IN the iſland of Ceylon there are ſeveral ſorts of elephants, ſome much higher before than behind, and ſome which never have the two long tuſks. Others are of a more ſavage nature,

known by the fierceneſs of their aſpect; and, not being tameable, are of no ſervice, except for the puniſhment of malefactors, as they kill all that come within their reach. This ſort the natives endeavour to deſtroy, either by ſhooting them, or cutting off their trunks. Beſides elephants, tigers, wild ſwine, and other quadrupeds common to other countries, there is in the iſland of Ceylon a ſort of bear, called the Ant-bear, from his living principally upon a certain kind of ant, of which there are great numbers in the iſland. In order to deceive them, the bear lies down near the little neſts they build, as if he was dead, lolling out his tongue as far as he can, upon which multitudes of ants preſently fix themſelves, when the bear draws in his tongue and ſwallows them; and then putting it out again he ſoon catches more, continuing ſo to do till he has ſatisfied his hunger. The neſts or habitations of theſe ants are very curiouſly formed, according to the accounts of travellers, being built in little hills, and conſiſting of vaults and arches of the fineſt clay, and ſo ſtrong as not to be eaſily demoliſhed.

There are various kinds of ſerpents in Ceylon, ſome very large and dangerous; but there are two ſorts that are not thought venomous, which the Ceyloneſe will not deſtroy. The firſt is of a bluiſh colour, about two yards and a half long, and an inch in diameter. He frequently comes into their houſes in queſt of rats, creeping into their neſts and deſtroying them, they being his principal food. The other ſort is about

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The Hooded Serpent.

about a yard long, half an inch in diameter, and of a green colour, like the leaves of the trees, up which he climbs, and there lies motionleſs, waiting for birds to perch near him, on which he ſuddenly ſeizes.

But of all the ſerpents which are found in the Indian iſlands, or in any other part of the world, perhaps none is more remarkable than the cucullated or hooded ſerpent, ſo called from a kind of hood or cap that covers its head. This ſerpent, according to the relation of M. de la Cote, who found one as he was hunting in a little iſland near Batavia, is as thick as a man's arm, and about eight feet long, being the ſame ſpecies that Tavernier mentions in his Travels.

To come to the feathered tribe; the birds of Paradiſe, which are chiefly found in the Molucca iſlands, have been much talked of by naturaliſts, who have deſcribed ſeveral ſorts of them, differing in ſize, ſhape, and colour. They have obtained the name we give them not only from their beauty, but from a vulgar opinion of their dropping down from heaven, it not being known where they breed, whence they come, or whither they depart. The bird is but ſmall, has a head like a ſwallow, with a bill ſomewhat longer, and the colours of its feathers are extremely beautiful. Strange ſtories have been told concerning theſe birds, ſuch as their wanting feet and legs; that they lived upon celeſtial dew; that they kept continually upon the wing, and took no reſt but on high in the air; that they

they were never taken alive, but that they fell down dead upon the ground, &c. all which things are now known to be falſe and fabulous, both by the accounts of travellers, and by the birds themſelves having been brought to Europe.

In Ceylon they have a black bird called carlos, as big as a ſwan, which ſeldom lights on the ground, but perches on high trees. It has ſhort legs, a large head, and a long bill, but crooked like that of a hawk. It has white ſpots on each ſide of the head, a white creſt on the top of it, and quacks like a duck. There is likewiſe a black water fowl, as big as a duck, which lives on fiſh, and dives a great while under water.

In the iſland of Java they have a great variety of animals, ſome of which have been already ſpoken of, and others will be deſcribed hereafter. Captain Hamilton ſays that their peacocks have all red bodies, but black wings and tails, and are ſo large, that when they take wing they may be heard half a mile. He particularly takes notice of two remarkable creatures called Jackoa and Oran-outang, the former whereof is like a lizard, and piſſes at any thing that provokes it; and its urine is of ſuch a nature that if it falls upon one's fleſh, it bliſters the ſkin, and without immediate cauſtics, or cutting out the part, it becomes abſolutely incurable. The Oran-outang, which is ſuppoſed to be peculiar to this iſland, approaches nearly to human be-

ings

ings, in its walking, ſhape, and ſagacity. The captain ſays he ſaw one kindle a fire, and blow it with his mouth, and another broil a fiſh to eat with his boiled rice; that they are of a melancholy diſpoſition, have a grave dejected countenance, and, even when young, are not inclined to play.

The iſland of Borneo, as well as Java, has a kind of little wild horſes, beſides various quadrupeds common to it with other parts of the Indies. There are likewiſe parrots and parroquets of all ſorts; and in the evening the ſky is almoſt darkened with a large kind of bats, which ſome travellers call flying cats, reſembling a fox in colour, ſhape, and ſmell. The wings of ſome of theſe bats, when extended, meaſure five or ſix feet from the tip of the one to that of the other.

In Sumatra they have plenty of wild hogs, which the Europeans often go out to ſhoot in the night-time; and what they call hog-deer, a creature about the ſize of a rabbit, that burrows in the woods, are alſo common in their markets. They have a head like a hog, are ſhanked and hoofed like deer, and their hocks are often tipped with ſilver for tobacco ſtoppers. In this animal is found a ſort of bitter Bezoar, reckoned extremely valuable. There is likewiſe the fineſt breed of cocks in this iſland of any in thoſe parts of the world, and the cockers, it is ſaid, will often venture their whole eſtates on the iſſue of a battle.

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VEGETABLES.

IT is theſe iſlands, and ſome few of them only, that furniſh us with nutmegs, cinnamon, cloves, &c. which ſpices are juſtly eſteemed for their ſalutary heat and aromatic odour, and ſeem in the firſt place to deſerve our attention. A vulgar error long prevailed, and is perhaps ſtill entertained by ſome people, that nutmegs, mace, cloves and cinnamon, were all produced by one and the ſame tree; but this is contradicted, by all our lateſt and beſt accounts, the opinion being only true with reſpect to mace and nutmegs. The nutmeg-tree grows ſpontaneouſly in the Banda iſlands, and eſpecially in that which particularly bears the name of Banda, formerly poſſeſſed by the Engliſh, but now by the Dutch, who have monopolized the ſpice trade to themſelves, and that by methods of great cruelty, witneſs their maſſacre of the Engliſh at Amboyna. And ſuch prodigious quantities of nutmegs are produced in theſe iſlands, that we are credibly informed the Dutch ſometimes burn vaſt heaps of them upon the ſpot, rather than bring them to Europe, and over-ſtock the markets.

The tree that bears theſe aromatic nuts is as large as our common pear-trees, and its leaves like thoſe of the peach-tree, but ſomewhat rounder. The fruit is about the ſize of a ſmall peach, conſiſting firſt of a ſoft juicy hull like that of a walnut, and immediately underneath it lies a thin

2 AU 58

Hulett sculp.

The Clove Tree.

2 AU 58

The Nutmeg Tree.

thin reddiſh coat called mace, and by ſome, though improperly, the flower of nutmeg. This encloſes a hard woody ſhell, and opens in proporti n with the outward hull. The ſhell is blackiſh; under which is a green film of no uſe, and in this is found the nutmeg. We are told that this fruit is gathered three times a year, viz. in April, Auguſt, and December; but the beſt are thoſe gathered in April. They muſt be choſen heavy, of a whitiſh brown colour, well marbled on the outſide, reddiſh within, having an agreeable ſmell, and a fat unctuous moiſture. It is to be obſerved farther, that there are two kinds of nutmegs, male and female; the latter of which is chiefly uſed amongſt us, the male being a wild nut of a longiſh form, without either ſmell or taſte.

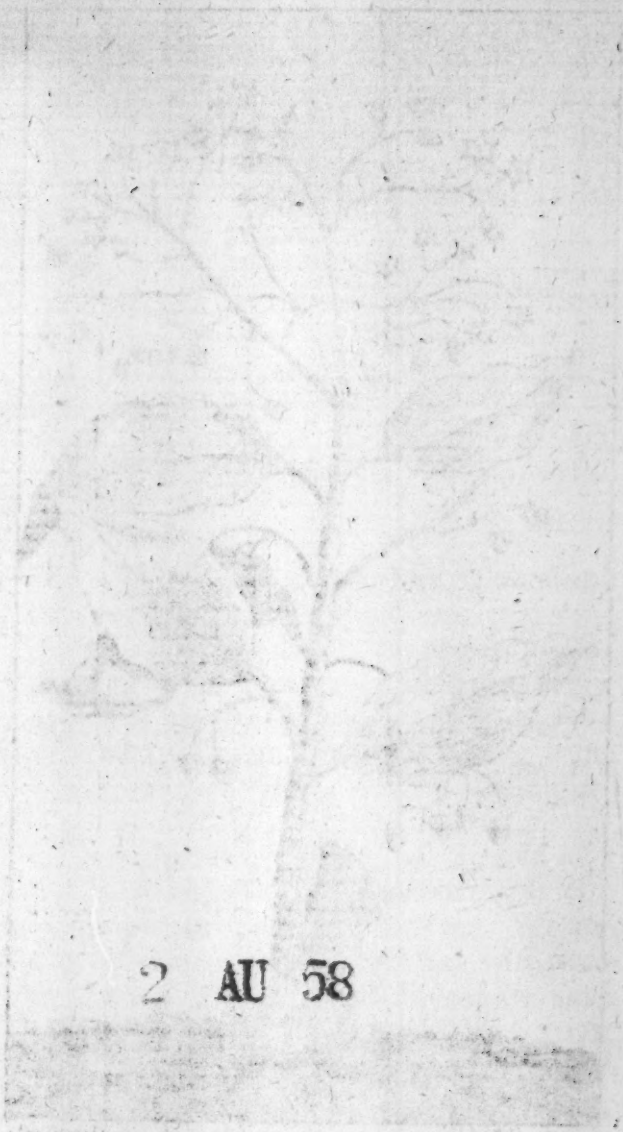
The nutmeg-tree is propogated after a particular manner, according to Tavernier's account, who relates, that when the fruit is ripe, certain birds devour it whole, but are forced to throw it up again before it be digeſted, and that the nutmeg, thus beſmeared with a viſcous matter, takes root where it falls, and produces a tree, which would never thrive, had the nutmeg been planted in its crude ſtate.

The clove-tree was formerly very common in moſt of the Molucca iſlands, and all nations furniſhed themſelves with cloves at liberty; but the Dutch to render themſelves ſole maſters of that merchandize, have found means to deſtroy all the clove-trees, except thoſe of Ternate, and a few

few other ſmall iſlands in their own poſſeſſion. The fruit of this tree falling on the ground, takes root, and thus it is multiplied without any culture. The tree reſembles a laurel, but its leaves are narrower; and it is ſaid that no graſs will grow under its branches, its own root attracting all the humidity of the ſoil. From the age of eight years to a hundred it bears fruit, which is gathered once a year; though ſome ſay they crop the buds one year, to make them thrive the better next; and ſo gather the fruit only every ſecond year. When the clove firſt begins to appear, it is of a whitiſh green colour, but grows brown as it ripens; nor is there any preparation neceſſary in order to render it ſuch as it comes to us, but to dry it in the ſun. Towards the head it ſeparates into four parts, whoſe apices meeting at the top, form a kind of crown, ſomewhat in the antique manner.

The fine ſpice we call cinnamon, is the bark of a tree growing plentifully in Ceylon, and perhaps peculiar to that iſland; at leaſt the beſt ſort is brought from thence, and the commerce thereof monopolized, like the other ſpices, by the Dutch Eaſt India company. By an account given us in the Philoſophical Tranſactions there appears to be ſeveral ſpecies of the cinnamon-tree, though ſome are not eaſily diſtinguiſhed from each other. That which yields the true and beſt cinnamon, has leaves like thoſe of the lemon-tree, bears white fragrant bloſſoms, and a yellowiſh fruit not unlike an acorn, which has neither the ſmell nor taſte

of



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The Cinnamon Tree.

of the bark, but yields when boiled an oily juice, that hardens and becomes like tallow, and is not only uſed by the Ceyloneſe both internally and externally for ſeveral diſorders, but alſo for candles, which is ſaid are only allowed to be burnt in the king's palace.

The inhabitants of this iſland extract from the root of the cinnamon-tree by inciſion a liquor that ſmells like camphire, and gradually coagulates into white grains. This ſpecies of camphire is alſo obtained by diſtillation from the bark of the root dried, bruiſed, and immerſed in water.

Having mentioned that camphire is obtained from the root of the cinnamon-tree, it is proper to obſerve, that it does not come from that tree only, but from another which grows very frequent in the iſland of Borneo. It is a ſubſtance of a very ſingular nature, diſtilling from the tree in manner of a gum, and thickening into little grains of different figures and ſizes. It is white, tranſparent, friable, of an acrid and ſomewhat bitteriſh taſte, of a penetrating ſmell, and to ſome people greatly offenſive. We are told that camphire is red at firſt, but whitened either by the ſun or by fire; and indeed we have very little of the raw natural camphire among us, the Dutch taking care it ſhall come refined by ſublimation, and prepared to our hands. Camphire flames, in an open fire, and when kindled, burns till it be totally conſumed; it likewiſe burns in water, and ſends forth a thick

dark ſmoke, which produces a blackiſh ſoot. When put into a pure glaſs veſſel, with an alembic fitted to it, it melts by the force of fire, aſcends into the alembic, and there concretes again into the form of Camphire, without any alteration. When put upon hot bread, if it becomes moiſt, it is a ſign of its being good and genuine; but if it becomes dry, it is a proof of its being bad and ſpurious.

The tree that produces ſago, grows common enough in the Molucca iſlands, and is a very uſeful one to the natives on ſeveral accounts. When a tree is felled they cleave it in two in the middle, and dig out the pith, which is eatable even when it comes freſh out of the tree; but to make bread of it they pound it in a mortar till it is reduced to a powder ſomewhat like flour. This done, they ſift it in a ſieve made of the bark of the ſame tree, and pour water upon it to ſeparate the fine part of the powder from the woody veins wherewith the pith abounds. The flour thus filtrated they call ſagou, which they make into paſte, and bake it in earthen ovens; and this they do with very great expedition. The pith of this tree being well beaten in a mortar with water, forms a kind of emulſion, the ſediment whereof dried is the ſago of the ſhops. It is much uſed amongſt us, being a very kindly and nouriſhing food, never fermenting in the ſtomach, and very proper in hectic fevers. We are told that from the ſame tree they draw a liquor as pleaſant as wine; that the leaves, when young, are covered

covered with a kind of cotton, whereof they make their cloth; and that, when they grow older, they ſerve to thatch their houſes.

What we call dragon's blood is a reſinous ſubſtance iſſuing from a large tree which grows in Borneo, and ſome other iſlands in the Indian ocean, as well as in Africa and America. This gum has its name from its reddiſh colour, and the tree itſelf is called *Draco Arbor*, or the *Dragon Tree*, by botaniſts, ſome of whom talk of the figure of a dragon finely repreſented under the rind of the fruit of the tree; but this is a mere fiction. The gum is eaſily melted by the fire, and flames when thrown into it, but is not diſſolved in any liquor without difficulty.

There remain yet ſeveral other trees and plants, the produce of the oriental iſlands, which are ſo remarkable as to deſerve our obſervation, particularly the Talipot in the iſland of Ceylon. This tree grows to a great height, having no branches on its trunk, but leaves on the top ſo large that one of them will ſhelter fifteen or twenty men. They fold up like a fan, and when dry, are ſtrong, light, and pliable, inſomuch that they are uſed for tents and umbrellas; and the natives write upon them inſtead of paper. The pith likewiſe, when beat in a mortar, makes tolerable bread, which the Ceyloneſe eat in a time of ſcarcity.

In Ceylon there likewiſe grows a tree called Kettule, which yields a pleaſant wholſome liquor, whereof the natives make a pretty good ſugar. They make ropes of its leaves; which, like thoſe of the betel tree, are faſtened to a hard ſkin, full of very ſtrong fibres. the buds have the taſte of almonds, and the wood is ſo hard, that it ſerves for peſtles to pound rice. One particular told concerning it is very wonderful, viz. that while it is growing it ſheds its leave, but ſheds none for many years after it is come to full maturity.

The orula bears a fruit like an olive, which is uſed for purging, and makes ink by being bruiſed and ſteeped in water. If laid upon iron, it clears it from ruſt in a night's time. There is alſo a tree called jackes, which bears a nut like a cheſnut, whoſe kernels are uſed inſtead of rice when it is ſcarce; and the tree yields a thick glutinous ſubſtance, which the boys uſe for bird-lime, and which taſtes like eggs when mixed with rice flour.

Rattans and large canes grow plentifully in Ceylon, running like vines along the ground, or up high trees, and bearing a fruit like bunches of grapes, covered with prickly ſhells, which fall off when ripe. Within theſe there is a ſcaly huſk incloſing a whitiſh kernel, of which the natives make a ſouriſh pottage, agreeable enough in that hot climate.

FOS-

FOSSILS, VOLCANOS, *and* SPRINGS,

MANY of the curious foſſils of theſe iſlands being of the ſame kinds of thoſe already deſcribed, in treating of the Aſiatic continent, it is not neceſſary to ſay much here concerning them. The iſland of Borneo, for inſtance, produces vaſt quantities of diamonds, and other precious ſtones, of which mention has been made in treating of the Eaſt-Indies. Several of theſe iſlands have likewiſe mines of gold, ſilver, copper, and iron; and gold duſt is frequently found among the ſand of the rivers. In Ceylon there are very rich mines of gold and ſilver, but it does not appear that any are wrought: however they work ſeveral iron mines, and the ſteel of this iſland is well tempered. Among the precious ſtones to be found in Ceylon, the rubies are remarkably fine; this gem being no where in ſuch plenty, except in the kingdom of Pegu in India. In Ceylon and Borneo is found the cat's eye already deſcribed; and moſt of the other gems are found in Ceylon, the mountains of which afford great quantities of white, red, and green cryſtal, together with ſalt-petre, ſulphur, and many other mineral ſubſtances.

The mountains of Formoſa are full of brimſtone, which makes the iſland ſubject to earthquakes. In the Philippine iſlands there are

ſeveral burning mountains, which have all the dreadful effects of Ætna and Veſuvius, being attended with violent earthquakes, rending the rocks, and ſcattering ſhowers of aſhes round the country. From theſe ſubterraneous fires proceed a great variety of hot baths, and ſome of their ſtreams are ſaid to be ſo hot, as to kill any animal that happens to fall into them; but the water, when cool, is well taſted, and reckoned a wholeſome drink. About half a mile from one of theſe hot rivers is another exceſſive cold one, and yet eſteemed equally wholeſome with the former for common drinking. There is a volcano in the middle of the iſland of Sumatra, and Nieuhoff mentions ſeveral ſulphurous ſprings iſſuing from the rocks, whoſe water reſembles oil, is good againſt lameneſs, and has a ſtrong but not nauſeous ſmell. It is ſo much valued for its medicinal qualities, that it is ſaid, the king of Achen prohibits the exportation of it on pain of death.

Engraved for the Beauties of Nature and Art display'd. Printed for J. Payne at the Feathers in Pater-noster Row London

An Accurate
MAP of
AFRICA
from the
Best Authorities
ETHIOPIC
OCEAN
Ascension
Tropic of Capricorn
INDIAN
OCEAN
Cape of Good Hope
Loanda
St. Helena
Quilongo
Loango
R. Zaire
Angola
Benguela
Matamba
Jagas
Fungeno
Monoe-Mugi
Mumbes
Monomotapa
Sambia
Chainouquas
Hottentots
Cobonas
Cimbebes
Gold Mines
Maravi
Zanguebar
Madagascar
Channel of Mozambique
Quiloa
Zanzibar
Pemba
Comore
Gold R.
R. S. Lucia
R. Sangue
R. Formigas
R. Christopher
R. of Infants
R. of Lagoa
C. des Fumes
B. Marguez
C. des Courans
R. Temba
R. Marguez
Manica
Faluca
Zimbaoe
Monomotapa
Sofala
Kilimana Ft.
Salima
Mosambique
Gold Mines
Butua
Gold Mines
Cimbebes
Farillons
Namaguas
Heusaquas
Elephants R.
Large River
R. Sans fin
C. de Sierra
Angra de Ilheo
Bravaghull R.
Pto dos Ilheos
Cadenho
I. Juntas
C. das Voltas
Morias de Pedra
B. St. Helena
Saldain B.
Table B.
St. Philip of Benguela
Angra St. Maria
B. Tortuga
C. Negro
C. Frio
C. Ledo
R. St. Francis
Annabon I.
Selte
Lopes Gonsalves
Bequa
St. Salvador
Sogno
Ango
Loango
Lo Ango
Ferguiney
Cafraria
Hottentots
Gaiges or Zimbes Canibals
Mumbes Canibals
Kilimana Ft.
Salima
Mosambique
Gold Mines
Monomotapa
Sambia
Chainouquas
Cobonas Canibals
Hottentots
Cape of Good Hope
Saldain B.
Table B.
Morias de Pedra
B. St. Helena
Cadenho
I. Juntas
C. das Voltas
Bravaghull R.
Pto dos Ilheos
Angra de Ilheo
C. de Sierra
Farillons
Cimbebes
Gold Mines
Manica
Faluca
Zimbaoe
Monomotapa
Sofala
St. Sebastian
Basse du Judea
B. St. Augustin
B. St. Jean
C. St. Marg
Lamanbasi
Andrew
Gaba
Gaboa
Anjouan
Mayotte
Glorious I.
John Marans
Comore
Pemba
Zanzibar
Monfia
Quiloa
Maravi
Lake Maravi
The Great Lake Maravi
Lopes Gonsalves
Annabon I.
Selte
Quilongo
Loango
R. Zaire
Loanda
C. Ledo
St. Helena
Ascension
10
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20 West Longde 10 from London 0 East Longde 10 from London 20
30
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J. Gibson Sculpt.

Of AFRICA *in general.*

THE vaſt tract of land called Africa, and reckoned in order, the third part of the world, according to the diviſion of geographers, is joined to the continent we have been ſurveying by the iſthmus of Suez, a ſmall neck of land which cuts off the communication between the Red-ſea and the Mediterranean. This laſt ſea divides it from Europe; and being on all other parts ſurrounded by the Red-ſea and the main ocean, it may be looked upon as a huge peninſula, the middle regions whereof, the ancients believed inacceſſible and uninhabitable, by reaſon of their intolerable heat, as lying moſtly under the torrid zone. And though we are much better acquainted with Africa than the ancients were, yet our knowledge is chiefly confined to thoſe countries that lie along the coaſts, occaſioned by the difficulty of travelling over its wide ſandy deſarts, and amongſt people ſavage in their nature, forbidding in their manners and language, and ſhy of all intercourſe with foreign nations.

The equinoctial line cuts Africa almoſt in the middle, ſo that near two thirds of it are contained between the tropics, or lie under the torrid zone, upon which account the greateſt part

part of it is exceſſive hot. Notwithſtanding this diſſadvantageous ſituation, moſt parts of Africa are inhabited, though not near ſo well as Europe or Aſia; for which divers cauſes may be aſſigned, as, 1. The barrenneſs of thoſe ſandy tracts. 2. The ſcarcity of water in many parts of Africa. 3. Becauſe in ſome ſandy parts, the wind blows the ſand in ſuch prodigious quantities, as to overwhelm whole caravans. 4. Becauſe ſeveral parts of Africa are infeſted with a great variety of wild, ravenous, and dangerous animals. And 5. Becauſe many of its provinces are inhabited either by canibals, who prey upon and eat one another; or by ſavages, who make war one upon another, and ſell all they can lay hold of for ſlaves.

The coaſts of this country, being leſs ſubject to theſe inconveniences, are found to be much better inhabited and cultivated, as well as more healthy and fruitful, particularly thoſe of Egypt and Barbary, where in ſome places the corn fields yield a hundred for one; and the ſtocks of the vines are as big as large trees. Africa produces great variety of excellent fruits, both for food and phyſic, and the cattle here are of a very large ſize, very fat, and the fleſh excellent.

CHAP. I.

Of EGYPT.

SECT. I.

A general Account of Egypt.

EGYPT is ſituated between 30 and 36 degrees of eaſt longitude, and between 20 and 32 degrees of north latitude. Its greateſt length, from north to ſouth is 600 miles; and its greateſt breadth, from weſt to eaſt, is 150 miles. It is bounded by the Mediterranean ſea on the north; by the red ſea on the eaſt; by Abyſſinia, or the upper Ethiopia, on the ſouth; and by the deſart of Barca, and the unknown parts of Africa, on the weſt.

Egypt is diſtinguiſhed into two grand diviſions, the Lower Egypt, and the Upper Egypt. Lower Egypt contains the cities of Grand Cairo, Bulac, Alexandria, Roſetto, and Damietta; and Upper Egypt contains the city of Sayd, or Thebes, and the city of Coſſiar.

The

The only river of Egypt is the Nile, which iſſues out of a lake in Abyſſinia, and bending its courſe directly north, enters Egypt, and runs from ſouth to north the whole length of the kingdom, falling into the Mediterranean ſea by ſeveral channels, the principal of which are thoſe of Roſetto and Damietta, ſo denominated from the cities of the ſame name, which ſtand upon them: theſe two branches, with the ſea, form a triangle called the Delta; and at their influx into the ſea, are about an hundred miles aſunder. When the ſun is vertical in Ethiopia, and the annual rains begin there, about the end of May, the Nile begins to riſe, and continues riſing till October, when the banks are cut; and it is let into a grand canal, which runs through Cairo, and is from thence diſtributed by numberleſs ſmaller canals, to the fields and gardens of Egypt. Before the end of September, the Nile uſually riſes twenty-four feet; and from that time, it continues to fall till the end of May the year following, when the flood returns.

The greateſt part of Egypt, lying in a valley between high rocks and mountains on the eaſt, and the ſandy deſarts of Lybia and Barca on the weſt, is exceſſive hot in ſome months, particularly in April and May, when they are troubled alſo with hot winds: at this time the ſand is driven about in clouds, ſo that the people are almoſt blinded; and they are more ſubject to diſeaſes at that time, than in any other

other part of the year: but the Nile no ſooner begins to riſe, and overflow its banks, than all diſtempers, even the plague, which viſits this country once in ſix or ſeven years, ceaſe. It ſeldom rains in the Upper Egypt, or any part of the inland country. In the Lower Egypt, they have ſometimes ſhowers, but not often; they depend entirely on the waters of the Nile to nouriſh the fruits of the earth.

The ſoil of Egypt, as far as the flood extends, has been formed by the mud, which the Nile carries with it, and is exceeding fruitful. As ſoon as the waters retire, the huſbandman has little more to do, than to harrow his corn and other ſeeds into the mud; but ſometimes he is obliged to temper the mud with ſand, to prevent the corn from being too rank; in a month or two the fields are covered with all manner of grain, peas, beans, and other pulſe; and where it is not ſown, the graſing ground becomes rich paſture, into which the cattle are turned out in November, and continue at graſs till the flood returns.

The Lower Egypt is all a ſea at the height of the flood, and only the tops of the foreſts and fruit trees appear, intermixed with towns and villages, built upon natural or artificial hills; and in the dry ſeaſons are ſeen beautiful gardens, corn-fields, and meadows, well ſtocked with flocks and herds, which a little before were under water: then they enjoy a ſerene heaven, and pure air, perfumed with the

the bloſſoms of oranges, lemons, and other fruits. When their pulſe, melons, ſugar-canes, and other plants want water, they convey it from their ciſterns and reſervoirs, by little channels, into their fields and gardens, where, beſides the fruits already mentioned, they have dates, plantains, grapes, figs and palm trees, from which wine is drawn.

SECT. II.

A particular Account of the moſt curious natural Productions of Egypt, *in the Animal, Vegetable, and Foſſil Kingdoms; of the River* Nile, *its Springs, Inundations, Cataracts, &c. and of other natural Objects of Curioſity.*

ANIMALS, VEGETABLES, *and* FOSSILS.

THERE are but few animals peculiar to Egypt, and of thoſe few the moſt curious and remarkable are inhabitants of the river Nile. In this river is found the Hippopotamus, or river horſe, called alſo the ſea-horſe, the horſe-whale, and the morſe. It ſeems to be a native of Ethiopia: but now and then comes down the river into Upper Egypt, and has been already deſcribed in another part of this work.

The

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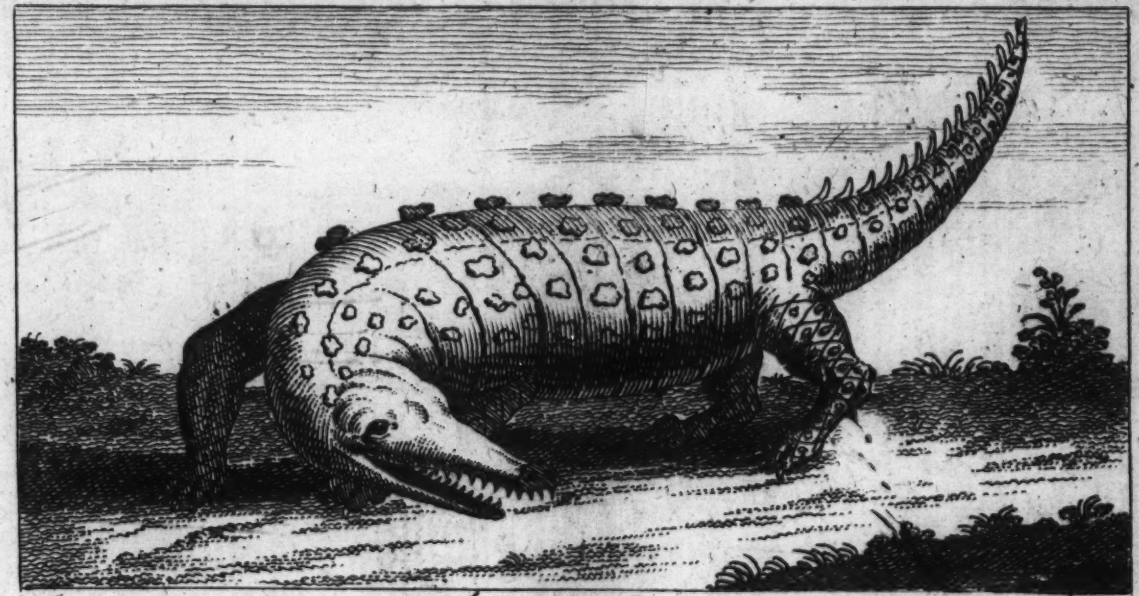

The Crocodile.

The crocodile is another amphibious animal, which inhabits the Nile, though not peculiar to that river, being alſo found in the Ganges, and other large rivers of India. It is ſhaped like a lizard, has four ſhort, thick legs, and its feet are armed with claws. Its back is covered with impenetrable ſcales, like ſome old pieces of armour, and reſembling the heads of nails in an old court gate; but its belly is ſoft and eaſily wounded. It has a broad flat head, a ſnout almoſt like a hog, and the opening of its mouth reaches to its ears. The teeth of this animal are white, long, ſharp, and ſomewhat crooked, and its upper jaw is moveable. it has no tongue, but there is a fleſhy ſubſtance lies along its lower jaw, which perhaps may ſerve to turn its food. Crocodiles have pretty large eyes, and are very quick-ſighted which is partly owing to a ſort of channel at the back of each eye, whereby they can ſee behind them as well as before. It is ſaid they can run faſt, but as they cannot eaſily turn their long unweildy bodies, their prey has the greater opportunity of eſcaping. Some crocodiles are twenty-five or thirty feet in length, but though they are very cruel and voracious, they ſeldom venture to attack men in companies, nor even a ſingle perſon unleſs they can do it by ſurprize. They ſeldom go above twenty or thirty yards from the river, but lie baſking in the winter upon banks of ſand, and in the heat of ſummer they generally keep under water. When they are diſturbed, they do not ſeem much afraid, but walk away ſlowly,

and hide themſelves gradually in the river. The manner of their propagation is by laying eggs, to the number of fifty or ſixty, and covering them about two feet deep in the ſand, where they are hatched in twenty or thirty days. The people ſearch for theſe eggs with an iron pike in order to deſtroy them, for as ſoon as the young ones are hatched they crawl into the river.

After the crocodile it is natural to take notice of a large Egyptian rat, ſuppoſed to be the Ichneumon of the antients, which, according to them, uſed to creep down the crocodile's throat while he ſlept with its mouth open, and having fed upon his liver, gnawed his way out again through the belly of that animal; but this ſavours too ſtrongly of fable to want confutation. However, this rat is ſaid to be of great ſervice in Egypt, by hunting out and breaking the crocodile's eggs, and thereby prevents the increaſe of that deſtructive creature. The make of the Ichneumon is much like that of the Stote, or pole-cat, but it is conſiderably larger.

Amongſt the winged tribe of Egypt we find the ibis, a bird held in great veneration by the antient Egyptians, on account of their deſtroying great numbers of ſerpents and other pernicious or uſeleſs reptiles; but this bird is now rarely to be ſeen in the country. Thoſe that are obſerved about the iſlands of the Nile are moſt of them greyiſh; whereas Herodotus deſcribes two kinds of them, the one all over black.

and

and about the ſize of a heron, the other white, except the head, neck, and ends of the wings and tail, which are black as the former. However, though the ibis be not ſo common in Egypt as formerly, the want of it is ſufficiently ſupplied by the ſtork, a bird as much eſteemed and reverenced by the preſent Mahometans in that country, as the ibis was by its ancient inhabitants; to kill a ſtork, or even to moleſt it, being accounted an act of profaneneſs.

Another bird much regarded in Egypt, is a ſort of large hawk, of a browniſh colour, with a very fine eye, which may be looked upon as a domeſtic animal, as it frequents the tops of houſes, ſo that one may often ſee hawks and pigeons ſitting quietly together. This may ſeem ſtrange, but it is to be obſerved, that theſe hawks are not birds of prey, though they eat fleſh when they happen to find it.

The wild geeſe in Egypt, of which they have abundance, are of a different kind from ours in Europe; and vaſt numbers of wild ducks frequent the pools in the low grounds, which are not quite dry till ſome months after the inundation of the Nile is abated. Their partridges are likewiſe very different from thoſe of other countries, being about the ſize of a ſmall dove. The cock is a beautiful brown bird, adorned with large ſpots of a lighter colour; and the feathers of the hen are like thoſe of a woodcock. As to their tame

fowls, beſides the common ſort, they have a kind of hens, which are very cheap, and little inferior to geeſe in bigneſs.

The ſandy and mountainous tracts, which run along each ſide of the fertile part of Egypt, abound with animals of the ſerpentine and lizard kinds. Of the former, a horned viper, the ceraſtes of the ancients, is the moſt common ſpecies, and great numbers of them are taken, being reckoned of excellent uſe in medicine. They are of a yellowiſh colour, like that of the ſand in which they are found; and have a ſort of horns, ſomewhat reſembling thoſe of ſnails, but of a real horny ſubſtance. They are remarkable for living a long time without any manner of ſuſtenance, as has been found by experience: for Dr. Shaw tells us, he ſaw a couple of theſe vipers, which an apothecary at Cairo had kept five years in a bottle without any ſort of food, unleſs a little ſand may be reckoned as ſuch, in which they coiled themſelves up at the bottom of the bottle. When the doctor ſaw them they had juſt caſt their ſkins, and were as briſk and lively as if but newly taken.

A ſerpent of great bulk, called thaibanne, perhaps the thebanus ophites of the ancients, is found in Egypt, though not very frequently. Some of them are ſaid to be three or four yards long, and as thick as a man's arm. We find no particular deſcription of this ſerpent, but it is ſaid to have a fleſhy ſubſtance reach-

reaching, on each ſide of its neck, from its jaw to about a third part of its body, which it can extend or contract at pleaſure, and thereby throws itſelf forwards ſurpriſingly.

In Egypt there are ſeveral ſorts of aſps, whoſe poiſons have different effects, but are all finally mortal. That ſpecies which Cleopatra is ſuppoſed to have uſed to put an end to her life, and thereby avoid the diſgrace of being led as an ornament in Cæſar's triumph, is of a ſingular nature, being very poiſonous, and yet ſuppoſed to eject a leſs quantity of venom than any other of the kind. This is certain, that the punctures made by its teeth are hardly perceptable, but the effects of it are very ſurpriſing; for after a perſon has been bitten about an hour, he finds himſelf heavy, and inclined to ſleep, without any pain or diſorder of mind; his limbs gradually loſe their ſtrength, a pleaſing ſtupidity ſucceeds, and at length he dies quietly, even without a groan. This ſort of aſp has very red eyes, and two of its longeſt teeth are hollow, from whence its poiſon proceeds. Its ſcales are hard, dry, and reddiſh, and its neck ſwells conſiderably when it is provoked.

Another ſpecies of aſps, which ſeem to be what we call darts, have their holes in the banks of the Nile, from whence they ſpring out ſuddenly on the unwary paſſenger; and their bite is ſo venomous, that amputation is the only cure, without which the patient dies in terrible

agonies. The belly of this aſp is white, his back of a deep blue, and on each ſide he has a black line from head to tail. His body is of an aſh colour, full of round black ſpots no bigger than lentils, each of which is encompaſſed with a circle.

The chameleon is an animal very common in Egypt, but a particular account having already been given of it, we ſhall only obſerve, that the chameleons of Egypt are generally larger than thoſe of other countries.

Laſtly, there is a lizard called worral, which is ſometimes three feet or forty inches in length, and ſix or ſeven inches broad, uſually of a bright reddiſh colour, with dark ſpots intermixed. It has no teeth, but a forked tongue, which it puts out like a ſerpent, and feeds upon flies and the ſmaller lizards. Holes and caves in the mountains are the places it frequents, where it ſleeps in the winter, and only appears in the heat of ſummer. It is a harmleſs creature of great docility, and particularly remarkable for its being affected with muſic.

It is not to be ſuppoſed, that ſuch a country as Egypt, which is very hot and annually overflowed, ſhould produce any great variety of plants; and it may be preſumed that very few, except thoſe of the aquatic kind, were originally produced in Egypt, but have been tranſplanted thither from other countries. The celebrated plant called papyrus, or biblus, which formerly

ly grew plentifully on the banks of the Nile, and is perhaps a native of Egypt, is now rarely to be met with, the poorer ſort of people having almoſt deſtroyed it, by digging up the roots for fuel. This plant was made uſe of by the antients to write upon, and thence our paper had its name. It has a large ſtem, from whence ſome ſay they took the pith, which they worked into a white paſte or glue, and of that made a kind of paper, almoſt in the ſame manner as we do with our linen rags; but others ſay, they uſed the inner rind for that purpoſe.

It is to be obſerved, that beſides paper the antients made ropes, ſails mats, blankets, ſhoes, and ſeveral domeſtic utenſils of the papyrus; but more uſeful inventions having ſet all this aſide, the plant is now neglected, and almoſt extirpated out of Egypt.

The palm or date tree is one of the moſt uſeful that Egypt produces, but we have little to ſay concerning it here, having deſcribed it, and given an account of the manner of its propagation, amongſt the vegetables of Perſia. The largeſt in Egypt grow about Faiume, where they are ſawed into boards, which is not uſual in other places. We have only to add, that the dates are ripe in November, and are reckoned very proper to be eaten in that cool ſeaſon, being of a warm nature, and comfortable to the ſtomach. From this fruit they likewiſe draw a tolerable ſpirit, much uſed by the Chriſtians of Upper Egypt; and this liquor in ſome meaſure

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ſupplies the place of wine, which providence has not given to the country.

The dumez, the ſycamore of the antients, which the Europeans call Pharaoh's fig, is common enough about the villages near Cairo, and is likewiſe found in ſome parts of Syria. It is a large ſpreading tree, with round leaves, and bears a fruit like the common figs, but ſomething ſmaller, and not much eſteemed. It is remarkable, that the fruit grows on ſeveral ſhort branches without leaves, that ſhoot out from the main limbs of the tree; and at the end of the fig, there gathers a ſort of water, which is let out by cutting the ſkin, otherwiſe the fruit will not come to perfection. The tree is propagated by planting its branches, which grow very faſt.

The caſſia fiſtula, which we call the pudding-pipe-tree, is not uncommon in Egypt, though it does not ſeem to be a native of the country. The tree is tall, its bark aſh-coloured, its wood very firm, its grain cloſe, and at the center it is black, but yellowiſh towards the outſide. Its flowers are alſo yellowiſh, and produce a fruit in the form of a long pod, which when ripe, is full of a black ſweetiſh pulp, divided by ſmall woody cells; and in this pulp are found little hard grains, ſhaped like hearts, which are the ſeed of the tree. Caſſia likewiſe grows in Braſil and in the Antilles, from which iſlands we chiefly receive it,

it, though formerly the popular caſſia was that brought from the Levant.

The acacia, or Egyptian thorn, ought to be mentioned amongſt the vegetables of Egypt, as being of conſiderable uſe in medicine, and growing chiefly in that country and Arabia. From the green pods it bears, a juice is expreſſed and inſpiſſated, which is brought to us in bladders, containing globular maſſes weighing from four to eight ounces, which are externally blackiſh, but internally of a ſhining brown colour, hard, brittle, and of an auſtere taſte.

In Egypt there is a tree called ſount, which ſeems to be a ſpecies of the acacia, and probably a native of the country. It is often planted on the ſides of the road, and there are little woods of it near ſome villages. Its keys or pods are uſed, inſtead of bark, in tanning of leather.

There is another ſort called fetneh, which is cultivated in gardens, its yellowiſh flowers being eſteemed on account of their ſweetneſs; but its roots, when opened and bruiſed, emit a diſagreeable ſmell, and that perceptible to a conſiderable diſtance.

Sena is the leaf of a ſhrub which is not peculiar to Egypt, but cultivated in ſeveral parts of Aſia; and this is confeſſedly the beſt ſort, being much ſuperior in goodneſs to that of Italy.

Italy. The ſhrub grows to the height of five or ſix feet; its leaves are ſhaped like the point of a ſpear, its flowers are yellow, and its fruit is a greeniſh flat pod, containing ſeveral cells of ſeeds reſembling grape-ſtones, which ſome phyſicians prefer to the leaves themſelves.

The tree producing the fruit called ſebeſtens, is found in Egypt, as well as in ſeveral parts of Aſia. It flowers in the ſpring, and the fruit is ripe in autumn, reſembling a little plum or prune, being of a blackiſh colour, its pulp very ſweet and glutinous, and incloſing a triangular kernel.

In the Lower Egypt, eſpecially near Roſetto, the lotus grows in great abundance. This plant is a ſpecies of the water-lily; its leaves float on the water, and cover its ſurface, producing many flowers, which were formerly wove into the crowns of conquerors. The ancient Egyptians made bread of the middle or pulp of the lotus dried, which reſembles that of a poppy; and they uſed to eat the root of it, which is round, and as big as an apple. After the flowers follow round green pods, which contain a ſeed not unlike that of a cabbage. At preſent the Egiptians make a drink of this plant, mixed with ſugar, which is good againſt inward heats; and, in ſummer, they eat the ſtalks and heads of it raw, which are ſweet, moiſtening, and cooling.

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The alhenna, alkenna, or alcanna, as it is called in our ſhops, is a ſhrub that ſhoots forth a great many branches, bearing leaves like thoſe of an olive-tree, but ſhorter, broader, and of a more pleaſant green. Its flowers are ſmall, and ſet like thoſe of the elder; and having an agreeable ſmell, the Egyptians uſe them in their baths. They alſo make a ſort of yellow dye of the ſeed of this plant, with which the women paint their nails, and ſometimes their hair, by way of ornament.

Amongſt other medicinal plants, Egypt affords the coloquintida, though it is far from being peculiar to that country. The fruit of this plant, uſually called bitter apple, is about the ſize of a large orange, and full of pulp and ſeeds, both which are extremely bitter, eſpecially the former.

To this account of the vegetable productions of Egypt, we ſhall add a few particulars relating to their harveſts, of which they have two in a year, a ſpring-harveſt from January to May, and a winter-harveſt about October. For the latter, before the land is overflowed, they ſow rice, Indian wheat, and what they call the corn of Damaſcus, which produces a large cane, and has an ear like millet. They alſo plant their ſugar-canes at the ſame time; for all theſe require a great deal of water, eſpecially rice, the largeſt crops whereof are produced near Damietta and Roſetto, where the lands are low, and more eaſily overflowed than

thoſe higher up the river. Their wheat and barley are ſown in November, or ſomewhat ſooner or later, according as the waters of the Nile retire; and what is ſown at this time of the year, they reap in March and April. At the ſame ſeaſon they ſow flax, lentils, lupines, and other vegetables of the like nature, which they gather in the ſpring; and about November they likewiſe cultivate their carthamus, or ſafranoun as they call it, which grows like ſuccory, and the flower of it being of uſe in dying, is accordingly brought into Europe. Their wheat is bearded, and their barley has ſix rows of grain in the ear, but is a coarſe ſort, and chiefly eaten by horſes. They have no oats, but plenty of beans, with which they feed their camels; and the people likewiſe eat them green, both raw and boiled. Neither have they any peaſe, but a ſort of vetch, with one large grain in each pod, which is eaten raw when green, and boiled when dry, and is not much inferior to peaſe in taſte.

With reſpect to the foſſils of Egypt, little is to be ſaid, as the country produces nothing remarkable upon that ſubject, except its marble, particularly its fine porphyry, which has been already deſcribed.

The SPRINGS, INUNDATIONS, CATARACTS, *&c. of the* NILE.

THE river Nile has always been reckoned one of the greateſt curioſities in Egypt, and to that river its fertility and happineſs is chiefly owing; for as it ſeldom rains in the inland parts of the country, and the ſoil is naturally dry and ſandy, if the lands were not annually watered by the overflowing of this river, Egypt, inſtead of the moſt fertile, would be one of the moſt barren regions in the world.

The ſources or ſprings of the Nile were abſolutely unknown to the ancients, and baffled all their enquiries; but our modern travellers, eſpecially the Portugueſe miſſionaries, who claim the honour of the diſcovery, have found that they lie in Abyſſinia, or Ethiopia Proper, in the eleventh or twelfth degree of north latitude; and ſome authors are of opinion, that the Nile divides itſelf into two branches, one of which runs weſtward into the Atlantic ocean, and the other taking its courſe northward through Egypt, falls into the Mediterranean. Whether this be ſo or not, or whether the river Gambia be the weſtern branch called Niger, is not our buſineſs to enquire; but the native country of the Nile being now diſcovered, the cauſe of its inundation is manifeſt. To ſay nothing of the falſe conjectures that have been made about it, it is now univerſally allowed to

be occaſioned by the great rains that fall in Ethiopia during the months of April and May, whereby the river is ſo ſwelled as to lay that country almoſt entirely under water, and afterwards Egypt in its courſe towards the Mediterranean. Nor is this inundation peculiar to the Nile, but common to it with other rivers that have their riſe or courſe between the tropics, where heavy rains conſtantly fall at a certain ſeaſon of the year, which cauſe them to break through their ordinary bounds, and overflow the adjacent countries in their paſſage to the ſea, particularly in Siam, Bengal, and other parts of the Eaſt Indies. The northern winds, called Eteſian by the ancients, as blowing annually during a certain time, have been likewiſe ſuppoſed to contribute not a little to the overflowing of the Nile, by retarding its courſe, and forcing the ſea againſt the mouth of the river; but if theſe winds have any ſuch effect, it muſt be inconſiderable.

Theſe rains being undoubtedly the cauſe of the Nile's overflowing, let us now conſider its gradual riſe, and the beneficial effects it produces. The Nile begins to ſwell in the month of May, but its increaſe is not conſiderable in the Lower Egypt, till about the 20th of June, nor is any public notice taken of it till the 28th of that month, at which time it is uſually riſen five or ſix peeks, a Turkiſh meaſure equal to about five and twenty inches. Being come to this height, the public cryers proclaim the riſe of the river in the city of Cairo, and continue

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to publiſh how much it increaſes every day, till it riſes to ſixteen peeks, at which time they make great rejoicings; and this uſually happens at the latter end of July, or before the 20th of Auguſt, but the ſooner it happens, they have the greater hopes of a plentiful ſeaſon. If the Nile do not riſe to ſixteen peeks, the people pay no tribute that year to the grand ſignior: but a ſtill greater height is neceſſary to cauſe a general flood, and prepare the lands for cultivation. Eighteen peeks, Dr. Pococke informs us, are reckoned but an indifferent Nile, twenty a middling one, and twenty-two a very good one, beyond which it ſeldom riſes. If it chance to riſe higher than twenty-four, the inundation is ſaid to be prejudicial, the waters in that caſe not retiring ſoon enough for the people to ſow their corn; but we ſcarce know any inſtance of this nature. The Nile is uſually at its greateſt height about the middle of September.

As the river cannot of itſelf overflow the lands every where in the neceſſary proportion, the people have cut, with incredible labour, a vaſt number of canals and trenches from one end of Egypt to the other, ſo that almoſt every town and village has its canal, which is opened at the proper time, and conveys the water of the Nile to diſtant places. It is from theſe canals, where the banks of the Nile are high, that the lands are overflowed; but it is otherwiſe where they are low, particularly in the Delta, which is that part of Egypt that lies

between the two mouths of the river. Canals are carried along the higher grounds, that the water may have a fall from them to the lower parts; and from the great canals it is drawn out into ſmall channels, and conveyed all over the country. It is likewiſe obſervable, that as they have dikes or banks to keep the water out of the canals till the river is riſen to a proper height to let it in, ſo in ſome of them they have contrivances to keep it in after the Nile is fallen, and alſo preſerve it in certain lakes or ponds, from whence they can let it out upon their lands at pleaſure.

The reader, however, is to underſtand, that ſome parts of the country lie too high to be watered by means of the canals, and ſeveral gardens and plantations require more refreſhment than what they receive from the annual inundation; and on this account they are obliged to raiſe water from the river, which is lodged in ciſterns or reſervoirs contrived for that purpoſe. This is generally done by the Perſian wheel, a machine turned by oxen, which carries a rope hung with ſeveral veſſels, which fill as it goes round, and empty themſelves at top into the reſervoir. They have another contrivance where the bank of the river is high; in which caſe they make a baſon on the ſide of it, fixing near it an upright pole, and acroſs the top of that another with an axle, at one end whereof hangs a great ſtone, and at the other a leathern bucket, which being drawn down into the water by two men, is raiſed

raiſed up again by the weight of the ſtone, the men directing it, and emptying it into the baſon. The former of theſe machines are chiefly uſed in the lower parts of Egypt, the latter in the higher; for as we advance up the river, the difficulty of raiſing the water increaſes.

We may judge how much the fertility of Egypt is owing to the inundation of the Nile, when we conſider that it leaves behind it a ſtratum of mud or ſlime, which, without any other manure, renews all the ſtrength of the ſoil that the foregoing harveſt had impaired; nay, it is frequently found neceſſary to temper it with a little ſand, to abate its exceſſive richneſs. And here it is worth obſerving, that the ſurface of the ground muſt have been conſiderably raiſed in a long courſe of years, by theſe repeated acceſſions of mud and ſlime, ſo that formerly a leſs riſing of the Nile was ſufficient to overflow the country than at preſent. As to the quantity of mud thus annually left by the river, it is a point not eaſy to determine, but Dr. Shaw ſuppoſes that the ſurface of the land of Egypt is thereby raiſed ſomewhat more than a foot in a hundred years; according to which computation, the perpendicular acceſſion of ſoil from the deluge to the preſent time muſt have been about two and forty feet. And hence the doctor imagines, that in proceſs of time the whole country may be reduced to the greateſt barrenneſs, by being raiſed ſo high that the river will not be able to

overflow its banks. But Dr. Pococke is of another opinion, as ſuppoſing that a great quantity of ſoil is annually carried off in the productions of the earth, which in Egypt is not ſupplied by manuring, and that the bed of the Nile may be raiſed by the ſubſiding of the heavier ſandy particles; for which reaſon he thinks it improbable that the land will ever riſe to ſuch a height, as to be deprived of the uſual inundations. He obſerves however, if that ſhould ever be the caſe in the Lower Egypt, the inhabitants would only be in the condition of thoſe of Upper Egypt, who are obliged to raiſe the water by art and labour.

With reſpect to the diſtribution of the waters of the Nile by means of canals, &c. we ſhall only add, that there is a great canal which runs from the river quite through the city of Cairo, and ſeveral miles beyond it. Near the mouth of this canal there is a mound or mole, which is every year broken down with great ſolemnity and rejoicing when the Nile riſes to the height of ſixteen peeks; and thereby the water is conveyed into the city, and from thence into the gardens and the adjacent country. The baſha himſelf, accompanied by all his great officers, and attended by a vaſt multitude of people, aſſiſts at the ceremony of cutting this bank; and, on this occaſion, the trumpets and other muſic, the repeated ſhouts of the people, the firing of guns, &c. make an agreeable confuſion. In ſhort, bonefires, illuminations, fireworks, ſeveral ſorts of games

and exercises, and whatever can express an universal joy, are continued for three days and nights successively.

Before we leave the Nile, it is proper to take notice of its famous cataracts, which are usually reckoned seven in number, where the river pours itself down high precipices with such a prodigious noise, that it may be heard at the distance of several leagues. De L'Isle represents one of them as falling from a height of two hundred feet, with a noise exceeding that of the loudest thunder; and it is said the water breaking with the fall raises such thick mists, that at a distance they appear like clouds. It is also reported that the water in its fall forms a kind of arch, under which one may walk without being wetted; and the neighbouring people seem formerly to have made this a diversion, there being several niches and seats cut in the rock, and likewise some grottos, which are now become inaccessible. Seneca relates a practise of the inhabitants near the cataracts of the Nile, which appears quite incredible, viz. That two of them get into a small boat, the one to guide it, the other to throw out the water, and directing the little vessel with their hands, they dexterously steer through the narrow channels without touching the rocks, till at last they are hurried down the precipice by the falling river. The frighted spectator now thinks them inevitably swallowed up and lost, but presently sees them appear again upon the water at a great distance.

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Some modern travellers ſeem to confirm this account; but Dr. Pococke, and Mr. Norden, who lately ſaw ſeveral of the cataracts, take no notice of any ſuch practice; nor do they repreſent them ſuch frightful falls as they are generally ſuppoſed to be. They tell us of ſome rocks that lie acroſs the river in three different places, dividing the ſtream and cauſing ſeveral falls of water; but they make the greateſt of them not above ſeven or eight feet, and others about four or five. They acknowledge, however, that the natives talk of other cataracts beſides thoſe they ſaw, and even reckoned ſeven of them, which ſeems to agree with the accounts of the ancients: but as to the Catadupa, thoſe high cataracts whoſe noiſe made the neighbouring inhabitants deaf, they look upon as fabulous.

To this account of the Nile it may be added, that the waters of it run through a canal during ſix months into the lake Mœris, and during the other ſix months flow back from the lake into the Nile. This lake is ſaid to have been dug by a king of Egypt of the ſame name, in order to correct the irregularities of the Nile, by receiving the ſuperfluous waters when the river roſe too high, and by ſupplying the lands with water when the river failed, which was let out of the lake into the adjacent country by a great number of canals and ditches. Many of theſe canals are ſtill ſubſiſting, which are equally ſerviceable to the preſent inhabitants of Egypt as they were to the ancient, and

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are attributed, like moſt other works of public benefit, to the patriarch Joſeph, whoſe name they have given to the great canal whereby the lake has communication with the Nile.

According to the accounts of Herodotus and Diodorus, this lake was no leſs than three thouſand ſix hundred ſtadia, or four hundred and fifty miles in circumference; whereas Pomponius Mela makes it no more than twenty miles: but the critics ſuppoſe this to be a miſtake in Mela's copy, and have accordingly corrected it by thoſe hiſtorians. The truth ſeems to lie between theſe two extremes, for travellers of veracity aſſure us, that the lake of Mœris is at this day between forty and fifty miles in length, and ten or twelve in breadth; though the extent of it varies as the Nile ſinks or riſes.

SECT. III.

An Account of the moſt celebrated Inventions, Diſcoveries, &c. of the Egyptians; *together with their moſt curious Arts, Manufactures, &c.*

EGYPT was antiently celebrated for being the ſeat of learning, and the nurſery of arts and ſciences, from which Greece and other nations received them. The antient Egyptians were

where the inventors of many uſeful arts and ſciences. Geometry is on all hands agreed to have been firſt diſcovered in Egypt; and it is ſaid to have owed its riſe to the neceſſity of meaſuring and laying out the lands, the boundaries of which were almoſt annually diſturbed by the overflowing of the Nile. Aſtronomy is generally ſuppoſed to have been invented by the Egyptians, who, by reaſon of the conſtant ſerenity of the air, and the flatneſs of their country, might obſerve the motions of the heavenly bodies earlier, and with more eaſe than other people. Herodotus, indeed, gives the honour of this invention to the Babylonians, but Diodorus derives the Babylonians themſelves, as well as their ſciences, originally from Egypt. The antient Egyptians were acquainted with the true ſyſtem of the world, now known by the name of the Copernican ſyſtem; and from the Egyptians, Pythagoras learned it, and taught it afterwards in Greece.

Theſe ſciences were, however, in thoſe early periods, but in their infancy. Geometry does not appear to have extended to all geometrical quantities, and ſubtile theories, like that of the moderns: perhaps it extended no farther than plain meaſuring, and ſuch rules as were of uſe in common life. And this will appear more probable, if it be conſidered, that Pythagoras, who travelled into Egypt, in order to acquire the learning of that people, after his return home, offered a hecatomb on his diſcovering that the ſquare of the hypotheneuſe of a right angled triangle,

triangle, was equal to the ſquares formed by the baſe and perpendicular; and Thales, who alſo learned geometry in Egypt, ſacrificed an ox to the Gods, for joy that he had found out a method of inſcribing a rectangled triangle in a circle. The profeſſors of aſtronomy in thoſe early times, appear to have been unable to make any artificial calculations, ſince Thales was the firſt who ventured to foretell an eclipſe, and Eudoxes and Ptolemy firſt reduced the heavenly motions into hypotheſes and tables.

Claudius Ptolemy, who flouriſhed at Alexandria, in the ſecond century, greatly improved aſtronomy and geography. He invented that ſyſtem of the world known by the name of the Ptolemaic ſyſtem, in which he ſuppoſed the earth placed in the center of the univerſe; and as many concentric heavens as planets, above which was that of the fixed ſtars, which where all whirled round the earth in twenty-four hours, from eaſt to weſt, by the revolution of a primum mobile, ſuppoſed above the fixed ſtars: but at the ſame time, each of the heavens had a particular motion, by which they made juſt the oppoſite revolution from weſt to eaſt, round the earth, ſome in a few months, that of the ſun in a year, and the others in ſeveral years. Though the ſyſtem of Ptolomy was repugnant both to reaſon and obſervation, and conſequently demoliſhed by Copernicus and his followers, it muſt be owned, that it was a great improvement in Ptolomy to have conſtructed mathematical inſtruments, of a determined and certain utility, and

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to have imagined in the heaven an order, which, falſe as it was, yet, in many reſpects, enabled the obſervers to give a probable account of the motions of the ſun and moon, and to foretell eclipſes, and to improve geography by certain rules. This laſt uſe Ptolomy himſelf made of his aſtronomy; for by the help of his inſtruments, he was enabled to determine the latitude and longitude of places, and conſequently to conſtruct maps, infinitely better than any of his predeceſſors.

Sculpture is generally ſuppoſed to have been invented by the Egyptians; and the firſt monuments recorded of this nature, were two Coloſſal ſtatues, the one erected in honour of Mœris, king of Egypt, the other in honour of his queen, both placed upon two thrones, ſupported by two pyramids, which were raiſed three hundred feet high, in the middle of the lake Mœris; ſo that notwithſtanding the prodigious circumference of this lake, theſe two ſtatues were conſpicuous from its banks. The invention of painting is alſo owing to the Egyptians, at leaſt as far as the four principal colours. The knowledge they had of chemiſtry ſeems to make this opinion certain, beſides the paintings ſtill to be ſeen among the old remains of the Egyptian buildings, which have ſo long reſiſted the injuries of time, and which ſtill retain a freſh and lively colouring, ſeem to put the matter beyond diſpute.

With reſpect to the antient ſtate of phyſic among the Egyptians, Clemens Alexandrinus informs us, that there were forty-two books of Hermes, of great account, which contained all the philoſophy of the Egyptians, and the ſix laſt of which related to medicine, and treated of the conſtruction of the body and its diſorders, with the methods of treating them. Herodotus informs us, that the practiſe of phyſic was ſo parcelled out and divided, that one pyhſician had the charge only of one diſtemper, and might not preſume to take upon him the care and inſpection of more.

In moſt parts of Egypt, and even in Cairo itſelf, the curious mechanical arts are generally in the hands of Chriſtians. Such artificers as jewellers, ſilverſmiths, &c. are fully employed at Cairo, in making ornaments worn by the women, and about the trappings of their horſes. The Egyptian pebbles, uſed for the handles of knives, ſnuff-boxes, and other toys, are wrought and poliſhed at Cairo to perfection. Their turners are remarkable for making wooden lattices for windows in a very curious and beautiful manner; and they alſo make ſome both of braſs and iron, of admirable workmanſhip, which they place before the windows of their moſques. Upon the whole, however, the preference is given to the artificers of Conſtantinople, and whatever is brought from thence is much eſteemed by the Egyptians.

The inhabitants of Upper Egypt have a very ſingular cuſtom, that deſerves to be mentioned. They load a boat with hives of bees when the honey is all ſpent, and falling down the river in the night time, they ſtop in the morning at a place they think moſt proper for the bees to fly abroad, and collect their wax and honey. When night comes on, and the bees are returned to the hives, they proceed on their voyage, caſting anchor again in the morning, and reſting all day as before. By this means, it is ſaid, they arrive at Cairo in ſix weeks or two months, where they are ſure of finding a good market for the cargo collected by their induſtrious little animals.

The method of hatching chickens in ovens is another curioſity for which Egypt is famous, and may be looked upon as an art peculiar to that country; nay ſome pretend, that only the people of one village are maſters of the buſineſs, who, at the proper ſeaſon of the year, diſperſe themſelves all over Egypt for employment, there being ſcarce a town but what is provided with ovens for this purpoſe. The ſeaſon for producing fowls after this manner is from January to April, while the weather is temperate, for at other times the heat is too violent. The ovens are built under ground in two oppoſite rows, with a gallery or paſſage between them; and they are raiſed one above another, with holes at the top, as there are likewiſe in the paſſage, which they open or ſtop as they would have the heat di-

miniſhed or augmented. The fuel they uſe to heat theſe ovens is dung and chopped ſtraw, which make a ſmothering fire, the ſmoke whereof is very offenſive. They continue to heat them gently for eight or ten days together, and then bring the eggs from the lower cells, where they had lain in heaps, and ſpread them in the upper apartments, ſo as only to cover the floor, and not lie one upon another. The buſineſs is now to turn them every day, and keep a moderate fire in a channel that runs along near the mouth of the ovens; and indeed the art conſiſts chiefly in giving the ovens a proper degree of heat, neither too much nor too little, for in either caſe the labour would not ſucceed. Their general rule is, that the eggs be never made hotter than a man can bear them to be applied to his eyelid. Thus, with good management, they begin to hatch in about three weeks, at which time it muſt needs be entertaining to take a view of theſe places, and to obſerve ſome of the chickens juſt putting forth their heads, others half out of the ſhell, and others quite delivered from their confinement.

The manner of preparing ſal ammoniacum, or ſal armoniac, as we commonly call it, is a curioſity which the Egyptians have kept a ſecret from the Europeans till within theſe forty or fifty years, it being firſt diſcovered by father Sicard, who has deſcribed the whole proceſs. It is not well known at preſent what the ſal ammoniac or cyreniac of the ancients was; but

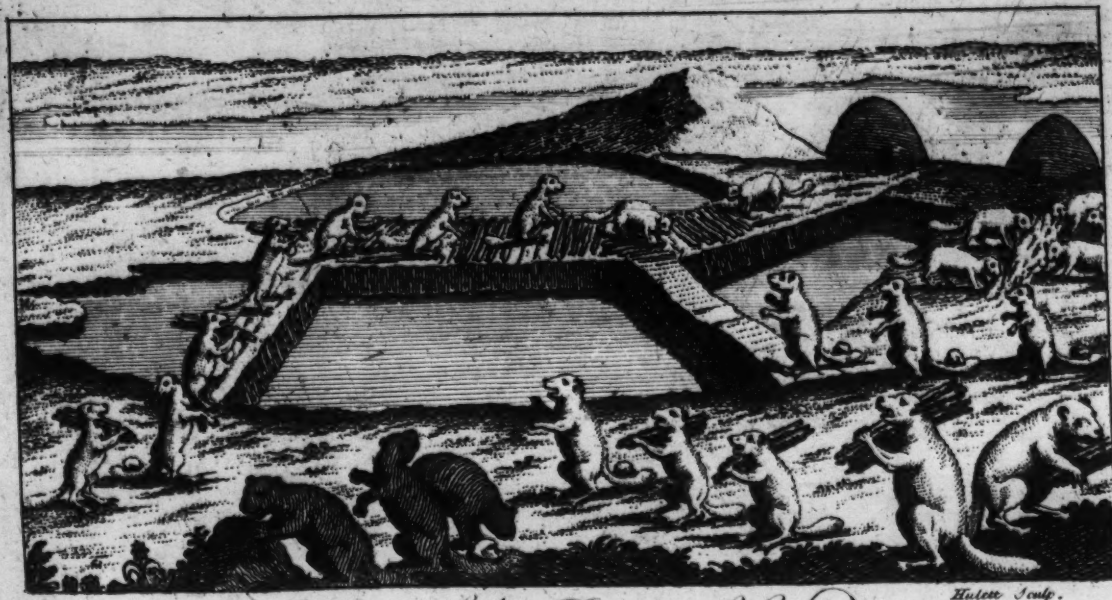
it is generally immagined to have been generated in the ſands from the urine of camels or other animals, which uſed to travel with the pilgrims that viſited the temple of Jupiter Ammon in the Libyan deſart. The preſent method of preparing it in Egypt is as follows.

The matter of this factitious ſalt is ſoot, cauſed by burning the dung of cows, camels, or other animals; the hotter it is the better; for which reaſon that of pigeons is reckoned preferable to all others, though that of camels is much eſteemed. Now in Egypt, the dung of animals, mixed with chopped ſtraw, made into cakes and dried, is the common fuel of the country; and theſe turfs, being impregnated with alcaline urinous ſalts, communicate to the ſoot certain properties which it could not be expected to receive from the ſmoke of wood or coal, and yet are abſolutely neceſſary for the production of ſal ammoniac. With this ſoot, to which ſome ſay they add a little ſea ſalt, and the urine of cattle, they fill large round bottles within an inch of the neck, which is about two fingers in height. Theſe bottles are caſed over with a fat earth, or earth and huſks of flax chopped and mixed together, to the thickneſs of a quarter of an inch; and when this coat is dried in the ſun, they lay on another as thick again as the former, and dry it in the ſame manner. Each bottle contains about forty pounds of ſoot, which, if it be of the beſt ſort, yields ſix pounds of ſal ammoniac at the

the end of the operation. Theſe glaſs veſſels, being filled as above, are placed in a thick bed of aſhes, over furnaces built like our common ovens, except that their vaults open with four clifts in a row lengthwiſe, each of which contains four bottles, ſo fixed that nothing but the necks appear, which ſome ſay are left open, but others, that they are luted with wet cotton. In this ſtate they are kept, with a conſtant fire under them, for three days and nights ſucceſſively, during which time, the acid and alcaline ſalts riſe up to the necks of the bottles, where they unite and coagulate. On the third day, the operator makes a little hole in each bottle juſt below the neck, to ſee if the matter be baked enough, and if there be nothing more to be ſublimed, and after he has made his obſervations, he ſtops it carefully with earth, opening it again when he finds occaſion. At laſt, when the work is brought to the requiſite perfection, he puts out the fire, breaks the bottles, ſhakes off the aſhes from the bottom, and takes away the round whitiſh maſſes adhering to the necks, which is what they call ſal ammoniac, and in ſuch cakes it is ſent to Europe. Every great laboratary conſiſts of eight furnaces, diſpoſed in two rooms, ſo that it employs at once a hundred and twenty-eight bottles. In two towns of the Delta, about a league from Manſoura, there are twenty-five great laboratories, and ſome ſmall ones, which make every year fifteen hundred or two thouſand quintals of this ſalt; and it is ſaid there

there are not above three more in Egypt, one of which is in the city of Cairo.

As to its being made of ſoot, Dr. James thinks it ſcarce credible, that ſo prodigious a quantity of ſoot as to produce fifteen hundred or two thouſand quintals a year, that is ſo many hundred weight, could be furniſhed in Egypt, which is a warm country, and where they only uſe fires in their kitchens and bagnios; and therefore he concludes, that the Egyptians, who make ſal ammoniac, uſe other ingredients beſides ſoot, which they have the addreſs to keep a ſecret. This is certain, that very good ſal ammoniac may be made without any ſoot at all, as was done at the works carried on at Newcaſtle not many years ago. Their method was this: to one gallon of bittern, that is, the liquor which drains from common ſalt whilſt making, they put three gallons of urine, letting them ſtand together forty-eight hours to efferveſce and ſubſide. They then draw off the clear liquor into leaden veſſels, where being evaporated and cryſtalized, a good ſal ammoniac was produced from the cryſtals by ſublimation.



Hulett Sculp.

The Industry of the Beavers of Canada.

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SECT. IV.

Particular Deſcriptions of the moſt remarkable public Buildings, and other ſingular Productions of Art in Egypt.

MOST of the houſes in Egypt, as in the reſt of the Turkiſh dominions, have but an indifferent appearance. The houſes of common people are chiefly built of clay, or bricks dried in the ſun, and are two ſtories high, but thoſe of the richer ſort are built of free ſtone, to a certain height, above which is a kind of cage work, ſometimes filled up with unburnt brick. Moſt of the houſes in Cairo have flat terraced roofs, where the inhabitants take the air in ſummer, which is very refreſhing in the evening; and thoſe of the richer people have a baluſtrade round them, adorned with fine carving, gilding, and other decorations.

The beſt houſes in Cairo are built round a court or ſquare, and, notwithſtanding the meanneſs of their appearance, are elegantly furniſhed and adorned within. Over their halls, which are generally paved with marble, there are handſome cupolas, ſometimes open at top to let in air; gold and azure gliſten in their principal apartments, the ſophas are furniſhed with rich velvet cuſhions, and the floors covered with the fineſt carpets, which are one of the chief manufactories of the city. The houſe

houſe ſaid to have been built by a ſultan of Egypt towards the end of the thirteenth century is very magnificent. The entrance to the grand apartment is by a fine old door, ſomewhat in the gothic taſte, but chiefly remarkable for two pillars on each ſide of it, which appear like two links of a chain hanging down from the capital, though they are cut out of one ſtone. The grand ſalon is in the form of a Greek croſs, with a cupola in the middle of it, and is beautifully wainſcotted ten feet high from the floor. To the depth of two feet from the top it is covered with Arabic inſcriptions; and underneath them are works of mother of pearl and fine marbles, in the figure of ſmall arches; below which it is all done in pannels with borders of moſaic work running round them, compoſed of pearl, glaſs, and ſuch like materials.

The caſtle of Cairo, ſuppoſed to have been built by Saladin, is ſituated on a rocky hill, and looks like another city, being a mile and an half in circumference, and ſurrounded by thick and lofty walls, flanked with ſtately towers, after the antient manner of fortification. On the weſt ſide of the caſtle are ſome very grand apartments, which diſplay the magnificence of the Mamaluke ſultans, who reſided there before Egypt was conquered by the Turks, and which have ſince been inhabited by the baſhaws. Some of them are covered with domes, and adorned with moſaic pictures; and even the doors are inlaid with mother of pearl, ebony, cryſtal and other curious materials; but this part

part of the caſtle is now taken up by a great number of artificers who are employed by the government, chiefly in weaving, embroidering, and preparing the hangings and coverings that are annually ſent to the temple at Mecca.

On the higheſt ground in the caſtle there is a ſpacious ſaloon, commonly called Joſeph's hall, which is now all open, except on the ſouth ſide, and is ſupported by abundance of large columns of red granite, ſome of which have plain capitals, and others are good Corinthian. Round each pillar is engraven an Arabic ſentence, and above them runs a ſort of wooden frize, filled with inſcriptions in the ſame language. Thoſe who have viewed this ſtructure, queſtion whether it was ever finiſhed.

The apartments of the baſhaw or viceroy, are now in a large court near the middle of the caſtle, and alſo the great divan, wherein are to be ſeen ſeveral leathern ſhields, each of them almoſt an inch thick, with a javelin ſticking in them, wherewith they were pierced by one of the ſultans, and are preſerved as a monument of his ſtrength. The officers under the baſhaw have alſo noble apartments in this citadel, which are kept in good repair, as well as the other buildings belonging to it, but the walls are running to decay.

There is an incredible number of moſques in Cairo, moſt of them poor little buildings, but

but ſome of them are magnificent fabricks, and deſerve the attention of a ſtranger. Amongſt theſe there is none more remarkable, either for the ſolidity of the ſtructure, or its majeſtic ſtatelineſs, than that of ſultan Haſſan, which ſtands at the foot of the hill whereon the caſtle is ſituated. It is built in the form of an oblong ſquare, and the entrance into it is inlaid with ſeveral ſorts of marble. It is very lofty, and is crowned with a very beautiful cornice that projects a great way, and is adorned with groteſque ſculptures: ſeveral other parts of it are likewiſe embelliſhed with carvings after the Turkiſh manner. The ſtrength of this place is ſuch, that it has often ſerved for a ſhelter to malecontents in times of public inſurrections; on which account the flight of ſteps that lead up to it is now broken down, the door walled up, and a garriſon of Janizaries quartered within its diſtrict.

In the neighbourhood of Cairo, as well as within the walls, there are many moſques that may be reckoned ſtately ſtructures. One called Amrah, ſaid to have been formerly a Chriſtian church, has near four hundred pillars, and thoſe of ſuch various kinds, that they ſeem to have been collected from ſeveral antient buildings. But the moſque, which perhaps exceeds all the reſt in the beauty of the architecture, and the richneſs of its ornaments, is one called Kubbe-el-Azab, from the Azabs or Azaphs, a body of Turkiſh infantry, to whom it belongs. The edifice, indeed, is but ſmall,

being

being about twenty yards ſquare, but it is covered with an elegant and majeſtic dome, raiſed on a baſe of ſixteen ſides, in each of which is a window. From the pavement to the height of eight feet, it is lined with pannels of the choiceſt marbles, amongſt which are ſeveral pieces of red and green porphyry. A frize that runs round it is filled with Arabic ſentences, cut in large gilt characters, and the borders of the pannels are likewiſe adorned with gilded ſculptures. The walls above the frize are alſo decorated with inſcriptions in the ſame language, and the whole cupola is gilt and painted in the moſt curious manner. Its ornaments are a great number of glaſs lamps, oſtriches eggs, and other things of that nature, very common in the Mahometan temples.

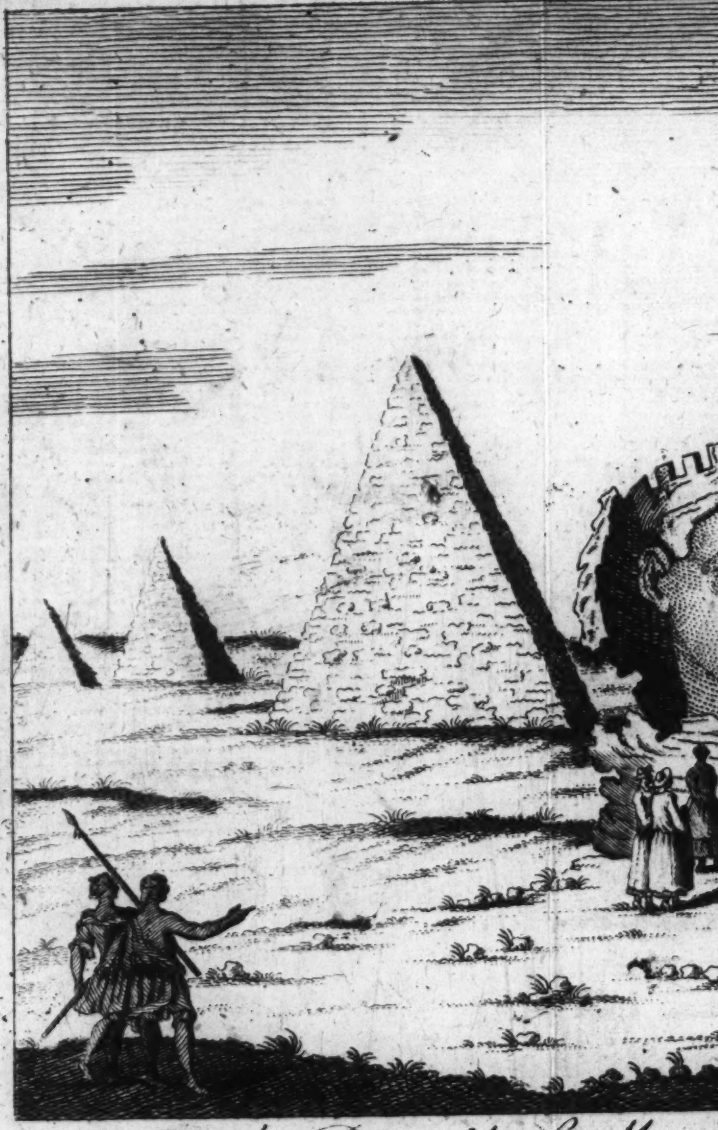
The Egyptian Chriſtians, called Cophti, or Cophts, have ſeveral churches in Cairo, where their patriarch reſides, though he takes his title from Alexandria, as well as that of the Greeks. The patriarchal church, however, is properly that of St. Macarius, in old Cairo, where he is elected and enthroned; and in that town theſe Chriſtians have ten or twelve churches, which generally conſiſt of a nave and two iſles, with galleries over them, and are adorned in the front with columns that ſupport the roof. The chancel is ſeparated from the body of the church by a partition, which is frequently embelliſhed with ſculptures, and inlaid with ivory, tortoiſe-ſhell, and other beautiful materials.

SECT. V.

Curious Remains of Antiquity in Egypt; *remarkable Laws and Cuſtoms of the Inhabitants, with a ſummary View of the moſt extraordinary Revolutions among them.*

REMAINS *of* ANTIQUITY.

OF the many celebrated remains of antiquity ſtill found in Egypt, the moſt famous are the Egyptian pyramids; thoſe amazing monuments of the wealth and grandeur of the ancient kings of that country, which are univerſally allowed to have been built at leaſt 1200 years before the Chriſtian æra. Of theſe pyramids there are three particularly remarkable, as they exceed the reſt both in magnitude and beauty; theſe are ſituated on a ridge of rocky hills on the borders of the Lybian deſart, about ten miles weſtward of a village called Gize, which is almoſt oppoſite to the city of Cairo, and is ſuppoſed to be the ſpot where the ancient Memphis ſtood, though the ruins of that renowned city are ſo completely buried, or removed, that not the leaſt traces of them are now to be diſcerned. The hill, on which they ſtand, riſes with an eaſy aſcent from the plains of Egypt, to the height of an hundred feet or upwards; and the rock conſiſts of ſuch free-ſtone as is uſed in the pyramids themſelves.



The Pyramids of Memp

Hulett Sculp

phis and the Sphinx

The largeſt of theſe pyramids, which has ſuffered leaſt by time and weather, is ſix hundred ninety-three Engliſh feet ſquare at the baſis, and its perpendicular height is four hundred ninety-nine feet; but if we take the height as the pyramid aſcends inclining, it is then ſix hundred ninety-three feet, which is exactly equal to the breadth of the baſis, ſo that the angles and baſis make an equilateral triangle. The whole area therefore of the baſe contains four hundred and eighty-two thouſand, two hundred and forty-nine ſquare feet, which is ſomething more than eleven acres of ground.

We aſcend the outſide of this pyramid by ſteps, which at the bottom are four feet in height and three in breadth, but the higher we go they gradually diminiſh; being ſo contrived, that a line ſtretched from any part of the baſis to the top would touch the edge of every ſtep, if the ſtones were not impaired by the air and rain; but at preſent they are ſo waſhed and mouldered away, that they cannot conveniently be aſcended, except on the ſouth ſide, or at the north-eaſt angle. The breadth and depth of every ſtep is one entire ſtone, ſeveral of them thirty feet in length; and the number of ſteps, according to Mr. Greaves, is two hundred and ſeven, but travellers differ in their computations. Whether theſe ſteps were intended to facilitate the aſcent to the top, or were deſigned to be filled with theſe priſmatical ſtones, ſo as to make each ſide of the pyramid

ſmooth and upon a plane, we ſhall not determine, but Dr. Shaw gives ſome good reaſons for the latter opinion.

The top of this pyramid does not end in a point, as it appears to thoſe who view it from below, but in a little flat or ſquare, conſiſting of nine ſtones, beſides two that are wanting at the angles. Each ſide of the platform is about ſixteen feet, ſo that a conſiderable number of people may ſtand upon it, from whence there is one of the moſt beautiful proſpects that can be imagined. It has been reported by many travellers, that a man ſtanding on the top cannot ſhoot an arrow beyond the bottom of the pyramid, but that it will fall on ſome part of the ſtructure; whereas it is certain that a ſtrong arm and a good bow will ſend an arrow to a much greater diſtance. As to the ſtory of theſe pyramids caſting no ſhadows, it is contrary both to reaſon and experience; for though at noon they caſt no ſhadow in the ſummer, and for almoſt three parts of the year, yet in winter at noon, and morning and evening all the year round, they certainly caſt a ſhadow proportionable to their bigneſs: and it is obſerveable, that Thales took the height of theſe pyramids by their ſhadows upwards of two thouſand years ago, as we learn from Pliny and Laertius.

On the north ſide of the large pyramid, ſixteen ſteps from the bottom, there is a ſquare narrow paſſage, leading downwards into the body

body of the ſtructure. This entrance is about three feet high, and as many wide, and its length ninety-two feet and a half. Thoſe who have been curious enough to creep through this narrow paſſage inform us, that at the end of it there is a wider place, about ninety feet long and of unequal breadth, ſuppoſed to have been dug for the diſcovery of ſome hidden treaſure, but not remarkable for any thing except the large bats by which it is inhabited. On the left hand they enter another paſſage, five feet high and a hundred and ten in length, through which they aſcend to two galleries, one of them running off horizontally, and the other riſing upwards in the ſame direction with the paſſage. The horizontal gallery leads to an arched vault or chamber, about ſeventeen feet long and fifteen broad, which ſmells like a grave; and is half full of rubbiſh. The walls are entire, and plaiſtered over with lime; and the roof conſiſts of large ſmooth ſtones, laid ſloping, ſo as to meet at top in an angle. Near the entrance into this gallery there is a circular well, three feet in diameter, which is lined with white marble; and little holes are left in the ſides, oppoſite to one another, wherein a perſon that deſcends into it muſt fix his hands and feet; which ſort of contrivance is ſeen in many of the wells and ciſterns of Egypt.

The aſcending gallery, whether we regard the materials or workmanſhip, is not inferior to the moſt magnificent buildings. It is paved

ſmooth and upon a plane, we ſhall not determine, but Dr. Shaw gives ſome good reaſons for the latter opinion.

The top of this pyramid does not end in a point, as it appears to thoſe who view it from below, but in a little flat or ſquare, conſiſting of nine ſtones, beſides two that are wanting at the angles. Each ſide of the platform is about ſixteen feet, ſo that a conſiderable number of people may ſtand upon it, from whence there is one of the moſt beautiful proſpects that can be imagined. It has been reported by many travellers, that a man ſtanding on the top cannot ſhoot an arrow beyond the bottom of the pyramid, but that it will fall on ſome part of the ſtructure; whereas it is certain that a ſtrong arm and a good bow will ſend an arrow to a much greater diſtance. As to the ſtory of theſe pyramids caſting no ſhadows, it is contrary both to reaſon and experience; for though at noon they caſt no ſhadow in the ſummer, and for almoſt three parts of the year, yet in winter at noon, and morning and evening all the year round, they certainly caſt a ſhadow proportionable to their bigneſs: and it is obſerveable, that Thales took the height of theſe pyramids by their ſhadows upwards of two thouſand years ago, as we learn from Pliny and Laertius.

On the north ſide of the large pyramid, ſixteen ſteps from the bottom, there is a ſquare narrow paſſage, leading downwards into the body

body of the ſtructure. This entrance is about three feet high, and as many wide, and its length ninety-two feet and a half. Thoſe who have been curious enough to creep through this narrow paſſage inform us, that at the end of it there is a wider place, about ninety feet long and of unequal breadth, ſuppoſed to have been dug for the diſcovery of ſome hidden treaſure, but not remarkable for any thing except the large bats by which it is inhabited. On the left hand they enter another paſſage, five feet high and a hundred and ten in length, through which they aſcend to two galleries, one of them running off horizontally, and the other riſing upwards in the ſame direction with the paſſage. The horizontal gallery leads to an arched vault or chamber, about ſeventeen feet long and fifteen broad, which ſmells like a grave; and is half full of rubbiſh. The walls are entire, and plaiſtered over with lime; and the roof conſiſts of large ſmooth ſtones, laid ſloping, ſo as to meet at top in an angle. Near the entrance into this gallery there is a circular well, three feet in diameter, which is lined with white marble; and little holes are left in the ſides, oppoſite to one another, wherein a perſon that deſcends into it muſt fix his hands and feet; which ſort of contrivance is ſeen in many of the wells and ciſterns of Egypt.

The aſcending gallery, whether we regard the materials or workmanſhip, is not inferior to the moſt magnificent buildings. It is paved

and lined with white poliſhed marble, cut in vaſt ſquares, and ſo curiouſly put together that the joints are ſcarce diſcernable. The height of this gallery is twenty-ſix feet, its breadth ſix, and on each ſide of it there are benches of poliſhed ſtone.

From hence through a ſquare hole they paſs into ſome little chambers or cloſets lined with marble, and then into a noble hall ſituated in the center of the pyramid, being equally diſtant from all the ſides, but rather nearer the baſis than the top. The floor, ſides, and roof of this room are all of Thebaic marble; and the ſtones are of a prodigious ſize, eſpecially thoſe that form the roof, lying acroſs from one ſide to the other like ſo many huge beams, and ſupporting an enormous weight. As to its dimenſions, its length is thirty-four feet, its breadth ſeventeen, and its height near twenty.

In this ſtately hall ſtands a tomb, placed exactly north and ſouth, and equally diſtant from all ſides of the room except the eaſt, from whence it is as far again as from the weſt. It conſiſts of one piece of marble hollowed, without any lid or covering, and being ſtruck it ſounds like a bell. The general opinion is, that it is the tomb of Cheops or Chemmis, king of Egypt, the ſuppoſed founder of this pyramid. There is no appearance of any corpſe having ever been laid in it, and probably there never was; for Diodorus who wrote above ſix-

teen

teen hundred years ago, informs us that Chemmis, and Cephren, the founder of the next pyramid, notwithſtanding they intended theſe ſtructures for their ſepulchres, were not buried in them, the people being ſo exaſperated by the hardſhips they had undergone in erecting them, and by their repeated cruelties and oppreſſions, that they threatened to tear their dead bodies in pieces; upon which they commanded their friends to bury them in ſome obſcure place in a private manner.

This tomb is of the ſame marble with which the whole room is lined, namely, a ſort that is ſtreaked and variegated with black, red, and white ſpots, which ſome call Thebaic, but others ſuppoſe it to be a kind of porphyry. Its figure is like an altar, and the marble ſmooth and plain, without any ſculpture or other ornament. If we meaſure its outward ſuperficies, it is ſeven feet three inches and a half in length, three feet and almoſt four inches in depth, and much the ſame in breadth; but the cavity within is little more than ſix feet long, two feet deep, and as many broad. From theſe dimenſions, as well as from the embalmed bodies in Egypt, it has been juſtly obſerved by Mr. Greaves and others, that there is no decay in nature, but that the men of this age are of the ſame ſtature they were three thouſand years ago. How this tomb was brought into this place where it now ſtands is difficult to conceive, it being impoſſible it ſhould come through the narrow paſſages above de-

ſcribed; which makes it generally ſuppoſed to have been raiſed up thither, from without, before the room was finiſhed, and the roof cloſed up: but perhaps there is ſome other way to the room within the ſtructure, which has not yet been diſcovered.

We have nothing to add concerning this tomb, but that there is a hole dug underneath it, and a large ſtone in the pavement near it removed, which was probably done in hopes of finding ſome treaſure; the burying of money in ſepulchres being not only a practice of the antients, but continues to this day in the Eaſt Indies.

To the ſouthward of the firſt pyramid, at a very little diſtance, ſtands the ſecond, ſuppoſed to have been built by Cephren the brother of Cheops, and deſigned for a ſepulchre, as well as the former. The ſtones of this pyramid are white, but much leſs than thoſe of the firſt; nor do the ſides riſe by degrees or ſteps, like the other, but are ſmooth and even; and the whole ſtructure, except on the ſouth, ſeems not to have received any conſiderable damage. The dimenſions of it, both as to height and breadth, are much the ſame as thoſe of the pyramid already deſcribed, but its aſcent is ſomewhat ſteeper. At ſome diſtance from the baſis, on the north ſide of this pyramid, there is a hole, which probably was made in order to find a paſſage to the inſide of it; but none has as yet been diſcovered, nor is it known whether

whether there be any rooms or apartments within, though it is reaſonable to ſuppoſe there are, as well as in the former.

On the north and weſt ſides of this pyramid there is a foſſe or trench, about ninety feet in breadth and thirty in depth, along which are a great number of cells or apartments hewn out of the ſolid rock, deſigned, as is ſuppoſed, for lodgings for the Egyptian prieſts. They are entered through ſuch ſquare openings as that deſcribed in the firſt pyramid, and many of the chambers have a communication with others behind them, which are now filled with rubbiſh.

About a furlong from the ſecond pyramid ſtands the third, upon ſuch an eminence or riſing of the rock, that it appears equal to the former at a diſtance, though it is much leſs both in height and breadth. Some antient writers affirm, that this pyramid was built, or at leaſt caſed with black Ethiopic marble; but whatever it may have been formerly, at preſent the whole ſtructure ſeems to be of a clear whitiſh ſtone, ſomewhat better and brighter than either of the former pyramids. Each ſide of its baſe is about three hundred feet, and its height is much the ſame; and all round it are to be ſeen the remains of the granite with which it was adorned, the greateſt part whereof has been carried away, though ſome few pieces continue in their places. Mycerinus, the ſon of Cheops, is ſaid to have been the

founder of this pyramid, and Diodorus ſays, his name was engraved on the north ſide of it, but nothing of that kind is to be ſeen at preſent.

The deſcription of theſe three pyramids may ſerve to give the reader an idea of thoſe that are to be ſeen in other parts of Egypt, which are all much inferior in magnitude to thoſe already deſcribed, except one, whoſe dimenſions and ſtructure are pretty near the ſame with the firſt and largeſt pyramid. It has ſteps on the outſide, but more decayed than the former; and on the north ſide it has alſo an entrance, but blocked up, ſo that there is no getting in to ſee the apartments. It is proper to obſerve, however, that the other pyramids, which are chiefly diſperſed about the Libyan deſart, are not all of the ſame form, ſome being quadrilateral, others round and terminating in a point like a ſugar-loaf; ſome riſing with a greater, and others with a leſſer inclination.

At a ſmall diſtance from the ſecond pyramid ſtands a monſtrous figure, uſually called a Sphinx, which the antients repreſented as having the head and breaſts of a woman, the wings of a bird, the claws of a lion, and the body like a dog. This figure the Egyptians uſed in their hieroglyphichs to repreſent a harlot, intimating the danger of being captivated with the beauty of a faithleſs woman, whom the fond lover in the end finds as cruel and rapacious as a lion. Of this Sphinx, however, there

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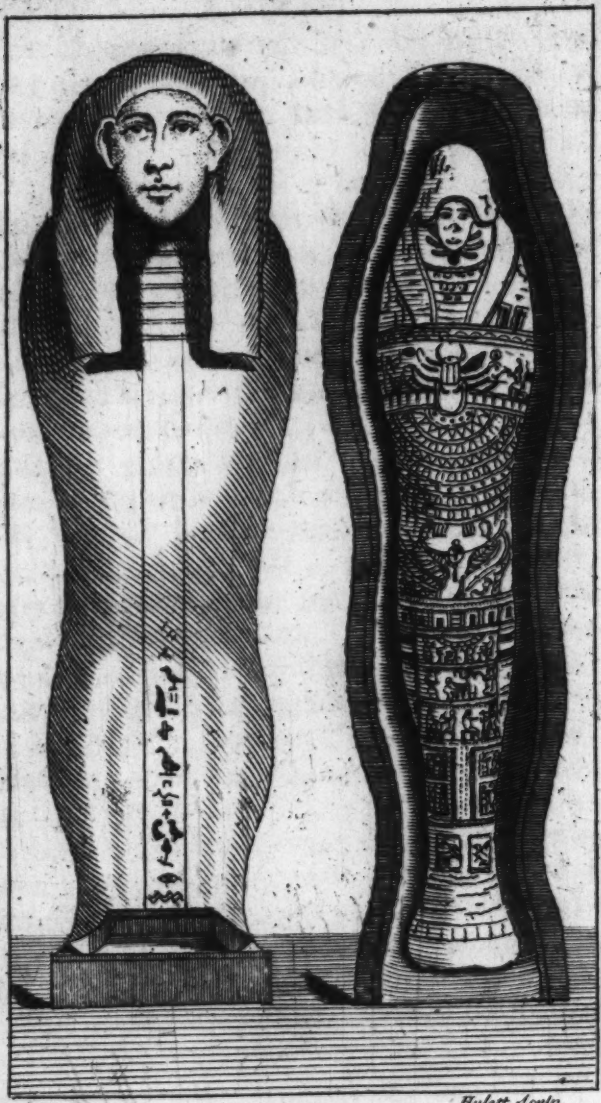

Hulett Sculp

Egyptian Mummies.

there is little more to be diſcerned at preſent than from the ſhoulders upwards, being a huge buſt of a woman, all cut out of the ſolid rock, except the upper part of the head, which ſeems to have been a ſeparate ſtone. Its height is almoſt thirty feet, and the breadth is much the ſame at the lower part of the neck or beginning of the breaſt. It is fifteen feet from the ear to the chin, and we may ſuppoſe the other parts of the figure are proportionable; but the ſand is ſo accumulated round it, that one can but juſt diſcover the top of the back, wherein there is a hole about five feet long, ſeventy-five feet, according to doctor Pocoke, from the hinder part of the neck, and thirty from the tail. Beſides this hole in the back, there is another on the top of the head, into which a full-grown perſon may deſcend, and from whence it is ſuppoſed the artful prieſts uſe to deliver their oracles. Some travellers have alſo imagined, that there is a ſubterraneous communication from the Sphinx to the largeſt pyramid; but this ſeems to be mere conjecture. The rock is dug away all round the Sphinx to a conſiderable diſtance, which was undoubtedly employed in building the pyramids. Pliny makes mention of this Sphinx, and tell us it was thought to be the ſepulchre of king Amaſis.

Nine or ten miles ſouth of the three great pyramids are the famous Catacombs or Mummy-Pits, of which travellers give us the following deſcription. Thoſe who have the curioſity

rioſity to viſit theſe pits, where the mummies or embalmed bodies are depoſited, are let down by ropes, the holes in the ſides made to deſcend by, as in the well of the pyramid above-mentioned, being ſo worn away, that it is dangerous, if not impracticable, to go down in that manner. Some of the pits are twenty or twenty-five, others thirty feet deep, and at the bottom there are horizontal paſſages which lead into ſquare rooms, in which are found the remains of embalmed bodies, ſwathes ſcattered up and down, and ſometimes cheſts and coffins ſtanding upright and entire, which are made of ſcycamore, or Pharaoh's fig-tree, and have continued ſound in theſe ſubterraneous apartments above three thouſand years, notwithſtanding the wood is ſpongy and porous to appearance. The top of the coffin is commonly ſhaped like a head, with a face painted upon it reſembling a woman; the reſt is one continued trunk, and the bottom is broad and flat, upon which it ſtands upright in the repoſitory. Moſt of theſe coffins are adorned with hieroglyphics, and ſome of them are finely gilt and painted, either with the figure of ſome tutelar deity, or that of the deceaſed. Little images of various kinds, ſome of copper, others of ſtone, are ſometimes ranged round the pedeſtals of the coffins, as if deſigned for ſo many guardian genii and attendants.

The bodies, upon opening the coffins, appear wrapped up in a linen ſhroud, upon which are faſtened ſeveral ſcrolls, likewiſe of linen, painted

painted with hieroglyphic characters. These scrolls commonly run down the belly and sides, or else are fixed on the knees and legs. On a kind of head-piece of linen, which covers the face, the countenance of the person is represented in gold; and the feet have also a covering of the same, shaped like a slipper, and painted with hieroglyphics. The whole body is swathed with fillets, or narrow bandages of linen, which are wrapped round in such a curious manner, with so many windings, and so often one upon another, that it is supposed a corpse has seldom less than a thousand ells of filleting. Those especially about the head and face are laid on with wonderful neatness, insomuch that the shape of the eyes, nose, and mouth are plainly perceived. The breast is also covered with folds of linen cut scollop-wise, richly gilt and painted; and sometimes we see the figure of a woman with her arms extended, the wings of fowls, or other ornaments.

It is to be observed, that the mummy-chests or coffins are not always of wood, some few being of stone; and of the wooden ones, some are made of boards, and others hollowed out of one piece of timber. There are also some bodies that have no other coffins than pieces of linen gummed or glued together, which yet are as durable as those of wood or stone; and there are others which have no coffins at all, but are wrapped up in reeds or branches of palm. These last, we may imagine, were the

the poorer ſort of people, whoſe families could not bear the expence of coffins; and it is probable they were piled one upon another, whereas the coffins ſtood upright upon their pedeſtals.

Amongſt theſe repoſitories of human bodies, there is one called the Pit of the Birds, about thirty feet deep, conſiſting of many handſome apartments, being the ſepulchre of birds and other animals worſhipped by the antient Egyptians, which they embalmed and wrapped up with the greateſt care, depoſiting them in earthen vaſes covered over and ſtopped cloſe with mortar. The form of theſe vaſes or urns is conical, and moſt of them contain an Ibis, a bird much reverenced by the Egyptians, as has been already obſerved, whereof the bill, bones, and the very feathers, are preſerved to admiration. Dogs and other animals have been found in larger vaſes, but at preſent they are rarely to be met with.

The pyramids and catacombs are perhaps the moſt remarkable curioſities of Egypt, and therefore we have been the more particular in deſcribing them; but there are ſeveral other noble remains of antiquity which muſt not be paſſed over in ſilence. Near the ſouthern part of the lake Mœris, was ſituated the celebrated Labyrinth, a ſtructure which in the opinion of Herodotus, who ſaw it, ſurpaſſed the report of fame, and was more wonderful than the pyramids themſelves. This magnificent

ficent pile, the ſame hiſtorian informs us, was erected by twelve Egyptian kings, at a time when the country was divided into ſo many different kingdoms, and, properly ſpeaking, conſiſted of twelve palaces, where the princes and magiſtracy of the whole nation uſed to aſſemble to feaſt and ſacrifice, and to deliberate about matters of ſtate and religion. It ſeems alſo to have been deſigned as a pantheon, or univerſal temple of all the Egyptian deities, which were ſeparately worſhipped in the provinces.

This vaſt edifice had twelve halls, which were vaulted, and had an equal number of doors oppoſite to each other, ſix opening to the north, and ſix to the ſouth. The whole number of rooms in it was three thouſand, one half of them above-ground, and as many below; and the paſſages throughout the building were contrived to meet and croſs each other with ſo much intricacy, that a ſtranger was preſently bewildered amongſt them, and unable to find his way out without the aſſiſtance of a guide. Herodotus tells us, that he viewed all the upper rooms of this labyrinth, but was not permitted to ſee the ſubterraneous apartments, becauſe they contained the ſepulchres of the kings who built it, and of the ſacred crocodiles, which animal was the peculiar deity of Arſinoe, a neighbouring city. This huge fabric is ſaid to have conſiſted entirely of ſtone, without any timber, being ſupported by a vaſt number of marble pillars, and the whole adorned with excellent ſculptures.

So great was the ſtrength of this ſurpriſing ſtructure, that Pliny ſays, it was remaining in his days, after having ſtood three thouſand ſix hundred years; and even at preſent one may find ſufficient tokens of its antient grandeur. At a place called Caroon, which is undoubtedly the ſpot where the labyrinth was erected, there are ſeveral heaps of ruins covered with ſand, abundance of ſtones ſcattered up and down; and proceeding farther, we come to the remains of ſome antient buildings, the largeſt of which, called the caſtle of Caroon, is about a hundred and ſixty feet long, and eighty broad, ſuppoſed to have been the ſquare pyramid which Strabo ſpeaks of at the end of the labyrinth.

There are ſome remnants of large marble pillars, which ſupported a very ruſtic portico, almoſt entirely deſtroyed; but through it we paſs into a fine ſpacious hall, and beyond it three others ſucceſſively, which are roofed with large tables of marble admirably joined together, and reaching acroſs from one wall to the other. From theſe halls there are openings into other rooms upon a level with them, and from thence there are ſtair-caſes to aſcend into thoſe that were above, and to deſcend into thoſe below; but moſt of the paſſages, as is reaſonable to ſuppoſe, are now choaked with ſand and rubbiſh. What remains of this ſtructure is about four and thirty feet high, and there is the appearance of a cornice running along it, though undoubtedly it was higher formerly. It ſeems to have been a fourth part of the inner building, which probably

bly had four fronts, with twelve halls anſwering to them; and this is almoſt evident from the ruins ſpread all round it to a conſiderable diſtance.

Proceeding up the Nile, we meet various remains of antiquity, particularly of the temples and ſepulchral monuments of the antient Thebes, though we muſt own the ſituation of many of the once famed cities of Egypt is now much diſputed. Near Aſſouan are to be ſeen the ruins of the antient Syene, ſituated juſt under the Tropic of Cancer. Between a hill and the river there is an old ſtructure, ſuppoſed to be that mentioned by Strabo, built over a well with two openings on the top, growing narrower upwards, for making aſtronomical obſervations. The very bed and iſlands of the Nile here are of red granite, formerly ſtiled Thebaic ſtone, and abundance of fragments of columns, and other pieces of it, are ſcattered about the country. In the iſland called Elephantine, over-againſt Syene, there are ſtill to be ſeen ſome remains of a temple of Cnupis, and before it a ſtatue eight feet high, ſitting with its arms acroſs, and holding in each hand a lituus, or trumpet.

Father Brothais, who went up the Nile till he came within two days journey of the cataracts, tells us, that he ſaw ſeveral pagan temples ſtill entire, together with very ancient palaces filled with ſtatues and idols. In one place he reckoned ſeven obeliſks like thoſe at Rome, and about a hundred and twenty colums in one

hall, inſcribed from top to bottom with hieroglyphic characters and figures of heathen deities. He likewiſe ſaw two ſtatues of a man and a woman, at leaſt ſixteen yards high, though ſeated in chairs, the whole of white marble, and well proportioned; alſo two others of black marble, repreſenting women, with globes on their heads, and meaſuring two feet from one ſhoulder to the other. The ſame father mentions two places where he met with antiquities, the one called Lozor, the other Candion, which laſt is a very old caſtle, ſuppoſed to have formerly been the reſidence of a king, according to a tradition of the country. In the avenues to it there are a great many ſphinxes ſtanding in a row, which fabulous monſter was once a famous deity among the Egyptians. They are twenty feet in length, and their diſtance from each other about two paces. On one ſide of an avenue he reckoned ſixty of them, and as many on the other ſide, and fifty-one in another avenue, all well proportioned. The gates of this caſtle are very high, covered with excellent ſtones, one of which our author meaſured, and found it to be twenty ſix feet and a half in length, and of a proportionable thickneſs. There are above a million of figures in profile engraven on the walls and pillars of this ſtructure; but that which moſt pleaſed father Brothais, was the ground, where the azure and other colours, which are like enamel, appear as freſh as if they had been laid on but a month before. There are temples, he ſays, ſo ſpacious, that three thouſand people may ſtand upon the roof with eaſe;

eaſe; and in the caſtle abovementioned there is a pond whoſe water is bitter, but is remarkable for whitening linen.

Amongſt the curious remains of antiquity to be ſeen in Egypt, we muſt not forget thoſe of Alexandria, particularly Pompey's pillar, which is a hundred and fourteen feet high, and has a Corinthian capital. The ſhaft, which is nine feet in diameter, and ninety in height, is of one entire ſtone, and the baſe and pedeſtal of another. It ſtands on a foundation conſiſting of ſeveral pieces of ſtone and marble, ſome of which have been dug away, in expectation perhaps of finding ſome treaſure; but our lateſt travellers ſay, that theſe defects in the foundation have been repaired.

The catacombs of Alexandria are alſo taken notice of as a great curioſity, being ſeveral apartments cut out of the rock, on each ſide of an open gallery, wherein there are three rows of holes to depoſit the dead bodies. The king's palace, with its ſuburbs, which took up one fourth part of the city, incloſed, among other things, the muſæum or academy, the royal ſepulchres, and the tomb of Alexander; all which are now gone to decay, and the ſtones carried off to build other parts of the city. The moſt conſiderable building now remaining, is the palace of Cleopatra, of which ſome ſtately galleries are ſtill ſtanding, together with a tower of white marble reſting on an arch or vault, where-

in are to be ſeen ſeveral niches adorned with colums of marble.

The ciſterns which were built under the houſes of Alexandria to receive the waters of the Nile, brought by a canal from the Canopic branch, are many of them entire, and ſtill ſerve for the ſame purpoſe. The iſland of Pharos, on which ſtood the celebrated watch-tower, or light-houſe of the ſame name, which was reckoned one of the Wonders of the World, is now joined to the continent. This famous ſtructure had ſeveral ſtories raiſed one over another, adorned with columns, baluſtrades, and galleries of the fineſt marble and workmanſhip; to which, it is ſaid, the architect had faſtened looking-glaſſes, wherein one might ſee the ſhips ſailing on the ſea at a great diſtance. But inſtead of this noble fabric there is now an irregular caſtle, without ditches or out-works of any ſtrength, out of the midſt of which riſes a tower that ſerves for a light-houſe, but which hath nothing of the beauty and grandeur of the old one. This caſtle is ſituated at the entrance of the new port, and ſome pillars are diſcernible thereabouts at the bottom of the water, which perhaps are the remains of the ſuperb ſtructure abovementioned.

Among other antiquities we alſo ſee two obeliſks, one of which is broken, part of it lying on the ground. The patriarchal chair, in the church of the Coptic convent, is a thing generally ſhewn to ſtrangers; and the Greeks boaſt of their being poſſeſſed of the ſtone on which

St.

St. Catharine ſuffered martyrdom; with other curioſities of the ſame nature.

Alexandria was once equal to the beſt cities in the world, not only for its noble walls, but for the number of its magnificent edifices, the remains of which are ſufficient tokens of its antient grandeur. The outer walls round the old city have pretty well eſcaped the injuries of time, and appear to be of excellent workmanſhip. They are twelve miles in compaſs, and are fortified with ſemicircular towers twenty feet in diameter, and about a hundred and thirty diſtant from each other. At the top of theſe walls there is a walk built on arches, and at each tower is a ſtair-caſe leading to the battlements. The inner walls ſeem to be the work of the middle ages, are much ſtronger and higher than the outer, and are flanked with ſtately towers. The four gates face the four points of the compaſs, and are ſtill beautiful, though ſomewhat decayed. Out of the ruins and rubbiſh of the old city are frequently dug medals, coins, and other rarities; and the great variety of pillars, moſtly granite, with many fragments of columns of beautiful marble, are monuments of its priſtine magnificence.

It may not be improper to obſerve, that in this city the famed Ptolemy erected his library, containing, in his time, 400,000 volumes, purchaſed at an immenſe price from all parts of the known world. However, it was ſo far enlarged by his ſucceſſors, that when it was burnt by Cæſar's

Cæſar's ſoldiers, it contained, according to Gellius, 700,000 volumes.

In the caſtle of Cairo they pretend to ſhew the very priſon in which Joſeph was confined; and there is a well called Joſeph's, which travellers repreſent as a great curioſity. It takes its name not from the patriarch Joſeph, as is generally imagined, but from a grand vizier, who had the direction of the work about ſeven hundred years ago. It is dug through the natural rock, the ſtone being ſoft, and has a ſtaircaſe that goes winding round it, above ſix feet wide, the rock being at leaſt half a yard thick between this paſſage and the well, which prevents people from falling. Holes are cut at proper diſtances to let in the light, and the deſcent is very eaſy, each ſtep being about ſix inches high, and five feet broad; but the place is ſo clogged with dirt, that the ſteps are ſcarce perceivable. Thus we deſcend to the bottom of the firſt part of the well, which is a hundred and fifty feet deep, when turning a little to the right, we enter a chamber cut out of the rock, where oxen, by means of wheels, raiſe the water from the lower part of the well to the bottom of the upper part, from whence it is drawn to the top by other oxen above. This lower well is not ſo wide as the former, and the deſcent is difficult and dangerous, the ſtairs being narrow, wet, and dirty, and no partition between them and the well. It is a hundred and twenty feet deep, which, added to the other number, make two hundred and ſeventy; but travellers differ

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in their computation, ſome making the number much greater. This well is never empty, being probably lower than the bed of the Nile; but the water is brackiſh, and therefore not fit to drink; however, it ſerves for common uſes, and is diſtributed in pipes to different parts of the caſtle.

A ſupply of better water is brought to the caſtle from the river itſelf, by an aqueduct which makes a grand appearance, though uniformity has not been obſerved in building it, the arches and piers being of different dimenſions. At the north end of Old Cairo is a magnificent hexagonal building, ſaid to have been erected by one of the Mamaluke kings of Egypt. On the outſide of it there is an eaſy aſcent for the oxen to go up, which turn the wheels, whereby the water is raiſed to the top of it from the reſervoirs below, into which it is let from the Nile by a channel cut for that purpoſe. Five oxen, and the ſame number of wheels, are employed in drawing up the water, which runs into a large baſon, and from thence into the aqueduct that conveys it to the caſtle. The arches of this aqueduct are about three hundred, Dr. Pococke ſays two hundred and eighty-nine; but others vary from theſe computations.

At a little diſtance from the caſtle is a kind of ſuburbs, called Caraffa, where there is a ſpacious burying-ground, and ſome magnificent tombs covered with cupola's, ſuppoſed to be the monuments of Egyptian kings, or of the caliphs,

liphs, the relations of Mahomet, who conquered Egypt. The people have a great veneration for theſe tombs, and will not permit either Jews or Chriſtians to paſs by them without alighting from their aſſes as a ſign of reſpect. They were formerly endowed with large revenues for the entertainment of pilgrims that came to viſit them; but the greater part of that income has been taken away by the avarice of the baſhaws, and moſt of the edifices are gone to decay, and lie quite neglected. Caraffa was antiently a ſort of univerſity for the ſtudy of law and divinity, and had a vaſt number of colleges and convents; but great part of it is now in ruins.

There is another piece of antiquity that deſerves to be mentioned, which is the mikias, or meaſuring pillar, divided into cubits, whereby the riſe of the Nile is exactly known. It is an octagonal column of white marble, placed in the centre of a baſon, whoſe bottom is probably on a level with the ſurface of the river when at loweſt, for to have it deeper would be of no ſignification. This baſon or reſervoir is in a little iſland over-againſt Old Cairo, and is ſurrounded with a handſome gallery; but the greateſt beauty of the place is the fine Corinthian capital of the column. From this ſtructure there is a deſcent to the Nile by ſteps, which are called Moſes's ſtairs, it being a received opinion among the people that he was taken up there, after he had been expoſed on the river in the ark of bulruſhes.

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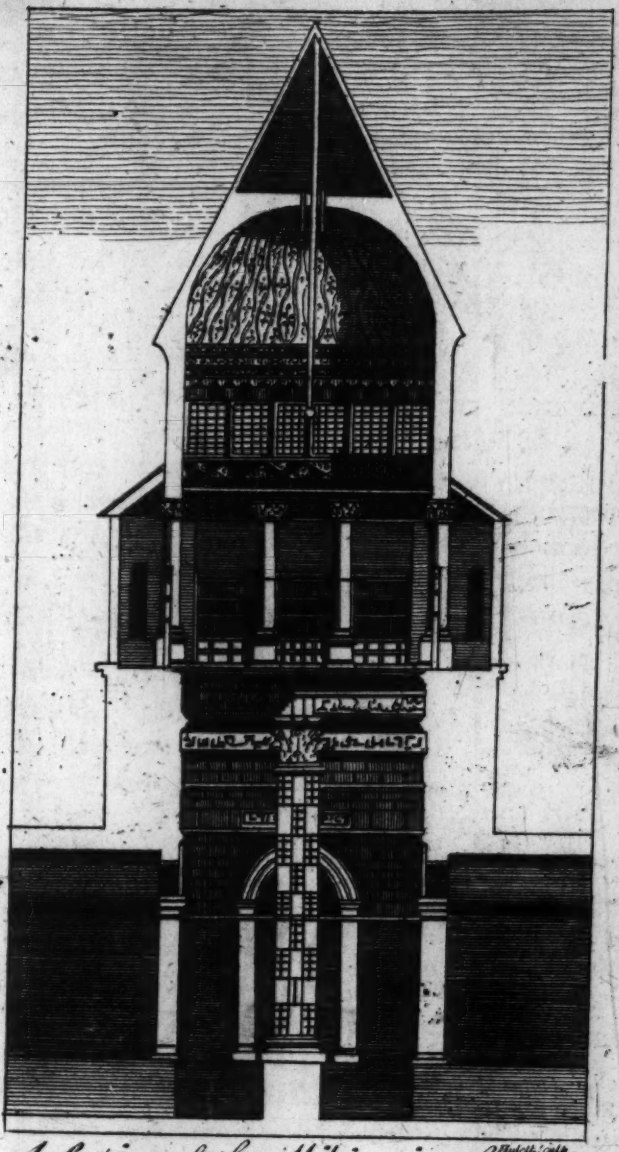

A Section of the Mikias in the Isle of Roida.

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The Jews have a ſynagogue at Cairo remarkable for its antiquity, being built, according to their account, about ſixteen hundred years ago; and they have a tradition, that the ſpot where they uſually read the law, was honoured with the preſence of the prophet Jeremiah. They have abundance of antient manuſcripts, and among the reſt they pretend to have one of their law written by the hand of Ezra; who having, as they ſay, omitted the name of God out of reverence wherever it ſhould have been wrote, found the vacancies miraculouſly filled up the day after it was finiſhed. This manuſcript they eſteem ſo ſacred, that no body is permitted to touch it, and it is kept in a niche nine or ten feet from the ground, before which a curtain is drawn, and lamps are continually burning.

We ſhall conclude this article with a ſhort account of the antient monaſtery of St. Antony, which is ſituated in the deſerts of Thebais, near ſome mountains where that famed hermit lived and died. This edifice is ſurrounded with an oval wall, about five hundred paces in circumference, and near forty feet high, to keep out the plundering Arabs. The pilgrims and other viſiters are drawn up into it by a rope let down from a kind of watch-houſe on the top of a wall, and a crane turned by the monks within the incloſure. The cells of this monaſtery, which amounted formerly to more than three hundred, are now reduced to about forty, the reſt being a heap of ruins. Theſe cells are more like ſepulchral vaults than chambers, being moſt of them

them not above four feet high, five wide, and ſeven in length. Beſides theſe cells, they have a common hall, a kitchen, and a ſtrong tower where they keep their proviſions, of which they commonly lay up a ſtock ſufficient for two years. The door that leads into it is plated with iron, and is entered by means of a draw-bridge from a lower tower over-againſt it; and hither the monks retire when they are cloſely beſieged by the Arabs.

But the greateſt curioſity of the place is a ſubterraneous paſſage about fifty paces long, which leads to a rock without the walls, from whence iſſues a ſtream of excellent water, ſufficient for all the uſes of the monaſtery, and ſerving to water their little garden, which is ſtored with variety of herbs and fruits. The beds of the monks are ſheep-ſkins ſpread upon mats, and a bundle of ruſhes ſerves them for a pillow. Their drink is water, and their food is chiefly the product of their garden.

There are more of theſe ſolitary places within the ſame deſert, ſome of which are cut out of the ſolid rock with a great deal of art and labour.

REMARKABLE LAWS *and* CUSTOMS *of the antient* EGYPTIANS; *together with a ſummary View of the moſt extraordinary* REVOLUTIONS *among them.*

THE Egyptians are ſaid to have been the firſt nation who rightly underſtood the rules of government; having perceived that the true end of it is to make life eaſy, and the people happy. The quantity, as well as the quality of the victuals and drink of the antient kings of Egypt, were preſcribed by the laws; and not only that, but all their hours, and almoſt all their actions were under the regulation of the laws. Thirty judges were ſelected out of the principal cities in Egypt, to form a body or aſſembly for judging the whole kingdom. The prince, in filling up theſe vacancies, choſe ſuch as were moſt renowned for their honeſty, and put at their head the man whom he found moſt diſtinguiſhed for his knowledge and love of the laws, and was held in the moſt univerſal eſteem. By his bounty they had revenues aſſigned them; to the end, that being freed from domeſtic cares, they might devote their whole time to the execution of the laws.

In Egypt, perjury was puniſhed with death, and the falſe accuſer was condemned to undergo the puniſhment which the perſon accuſed was to have ſuffered, had the accuſation been proved. He who neglected or refuſed to ſave a man's life, when attacked, if it was in his power to

aſſiſt him, was puniſhed as rigorouſly as the aſſaſſin. No man was allowed to be uſeleſs to the ſtate, but every one was obliged to enter his name and place of abode in a public regiſter that remained in the hands of a magiſtrate, and to annex his profeſſion, and in what manner he lived; and if ſuch a one was convicted of giving a falſe account of himſelf, he was immediately put to death.

Polygamy was allowed in Egypt, except to prieſts, who could marry but one woman; the marriage of brothers and ſiſters was not only authorized by the Egyptian laws, but even in ſome meaſure was a part of the Egyptian religion, from the example and practice of ſuch of their gods as had been the moſt antiently and univerſally adored in Egypt, that is, Oſiris and Iſis. A very great reſpect was paid to old age in Egypt: but the virtue in higheſt eſteem among the antient Egyptians was gratitude; and no kind of gratitude gave them a more noble ſatisfaction than that which was paid to their kings.

Cham, the ſon of Noah, is generally ſuppoſed to be the ſame with Jupiter Ammon, and Miſraim, his grandſon, the ſame with Oſiris, the great deity of the antient Egyptians. From him, it is ſaid, deſcended the race of monarchs who had the denomination of Pharaohs, of which line there are reckoned above ſixty princes, who reigned, as is ſaid, in an uninterrupted ſucceſſion to the year of the world 3437, when Pharaoh Pſammitius, the ſecond monarch of that name,

was

was conquered by Cambyſes king of Perſia, who united Egypt to the Perſian empire, under which it remained till the reign of Darius, being upwards of an hundred years, when it revolted from that crown, and became an independant kingdom.

In this ſtate it continued above fifty years, when Ochus king of Perſia recovered the dominion of it again, and it remained ſubject to the Perſian monarchs, till Alexander the Great defeated Darius, when it fell under the power of that prince, with the reſt of the provinces of the Perſian empire.

After the death of Alexander, Ptolemy, the ſon of Lagus, found means to mount the throne of Egypt, and render it an independant kingdom once more; and his ſucceſſors, kings of Egypt, ever after retained the name of Ptolemy. In this line the crown of Egypt continued between two and three hundred years, the laſt ſovereign being Cleopatra, the wife and ſiſter of Ptolemy Dionyſius, the laſt king, and miſtreſs to Julius Cæſar and Mark Anthony ſucceſſively.

After the death of Cleopatra, this kingdom fell under the power of the Romans, and became a province of the Roman empire, in which ſtate it continued till the reign of Heraclius, emperor of Conſtantinople, when the Egyptians being diſguſted with their governors, called in Omar III. caliph of the Saracens, and ſubmit-

ted themſelves to the Mahometan power about the year of the Chriſtian æra 640.

The caliphs of Babylon were ſovereigns of Egypt till about the year 870, when the Egyptians ſet up a caliph of their own, called the caliph of Cairo, to whom the Saracens of Africa and Spain were ſubject; but the governors of the provinces, under the caliphs of Babylon and Cairo, ſoon wreſted the civil power out of the hands of their caliphs, leaving them only the ſhadow of government.

About the year 1160, Aſſareddin, or Saracon, general of Narradin, the Saracen ſultan of Damaſcus, ſubdued the kingdom of Egypt, and uſurped the dominion of it; and was ſucceeded by his ſon Saladin, who reduced alſo the kingdom of Damaſcus, Meſopotamia, and Paleſtine, under his power; and about the year 1190, took Jeruſalem from the Chriſtians.

This prince eſtabliſhed a body of troops in Egypt like the Turkiſh janiſſaries, compoſed of the ſons of Chriſtians taken in war, or purchaſed of the Tartars, to whom he gave the name of *Mamalukes*, which ſignifies *ſlaves*; from their being devoted in a peculiar manner to the ſervice of their ſovereigns.

The poſterity of Aſſareddin enjoyed the crown of Egypt till the year 1242, when the mamalukes depoſed Elmutan, and ſet up Turqueme nius, one of their own officers, upon the throne

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The Mamaluke ſultans were engaged in continual wars with the Chriſtians in Syria and Paleſtine, till Arophus the ſixth ſultan entirely diſpoſſeſſed the Chriſtians of the Holy Land: the ninth ſultan, Melechnoſſar, ſubdued the iſland of Cyprus, and made it tributary to Egypt.

About the year 1501, Samſon Gaurus, the fifteenth ſultan of the Mamalukes, entering into an alliance with Iſhmael, the ſophi of Perſia, againſt Selim, the third emperor and tenth king of the Ottoman family, the confederates received ſeveral memorable defeats; and Tomobeus II. who ſucceeded Samſon Gaurus, was depoſed and murdered by Selim, or, according to ſome accounts, hanged up at one of the gates of Grand Cairo. Gazello, one of the grandees of the Mamalukes, maintained a war for ſome time againſt Selim, but was at length defeated, and Egypt made a province of the Ottoman empire, as it continues to this day.

CHAP. II.

Of BARBARY.

SECT. I.

A general Account of BARBARY.

BARBARY is ſituated between 11 degrees weſt, and 30 degrees eaſt longitude, and between 28 and 37 degrees of north latitude. Its greateſt length, from eaſt to weſt, is about 2500 miles; and its greateſt breadth, from ſouth to north, is about 600 miles. It is bounded by the Mediterranean Sea, which divides in from Europe, on the north; by Egypt, on the eaſt; by Biledulgerid, on the ſouth; and by the Atlantic Ocean, on the weſt.

This vaſt tract of country, comprehended under the common name of Barbary, is diſtinguiſhed into the following five kingdoms, or ſtates: 1. The kingdom of Barca, the chief city of which is Dorca. 2. The kingdom of Tripoli, with its chief city of the ſame name. 3. The kingdom of Tunis, with its chief city

of the ſame name. 4. The kingdom of Algiers, containing the cities of Algiers, Tremeſen, Oran, Bugia, and Conſtantina; and 5. The empire of Morocco, divided into the kingdom of Fez, the chief cities of which are Fez and Mequinez; and the kingdom of Morocco, with its chief city of the ſame name.

The principal mountain in theſe parts is mount Atlas, which runs the whole length of Barbacy, from eaſt to weſt, and parts it from Biledulgerid. This mountain abuts into the Weſtern Ocean, which divides the weſtern from the eaſtern continent, and is from mount Atlas called the Atlantic Ocean. The antient poets have ſuppoſed that this mountain ſuſtained the world; whence we ſee Atlas with the world on his ſhoulders; and a geographical deſcription of the globe is commonly called *an Atlas*.

There are few rivers in Barbary; the chief river is the Mulvia, which riſes in the deſarts, and running from ſouth to north divides Morocco from the kingdom of Algiers, and diſcharges itſelf into the Mediterranean Sea.

Barbary is, next to Egypt, the moſt fruitful, trading and populous part of Africa, though Barca is ſcarce any thing elſe but a parched barren deſart, with very little water; there being only ſome ſmall ſpots near villages, which afford a little corn and a few dates, whereof the natives exchange a ſmall quantity with their neighbours for ſheep and camels. The ſoil of

Tunis

Tunis is generally fruitful towards the weſt, but very poor towards the eaſt for want of water; and that part of Tripoli contiguous to Tunis is tolerably fertile. Algiers is very mountainous towards the Mediterranean; but both hills and vallies, where they are cultivated, abound in corn, dates, almonds, olives, figs, grapes, and other fruits. The country of Fez and Morocco is finely diverſified with mountains and vaſt extended plains, moſt of them ſufficiently fruitful, and pretty well inhabited; though in many parts, as well as the reſt of Barbary, it is dry, ſandy, and barren.

SECT. II.

A particular Account of the moſt curious natural Production of Barbary, *in the Animal, Vegetable, and Foſſil Kingdoms; of medicinal and other ſingular Springs; of Caverns, and other natural Objects of Curioſity.*

ANIMALS.

OF all the animals of Barbary, the Lion, uſually called the King of Beaſts, ſeems to merit our firſt attention. This noble creature, which rules with a tyrannical empire over the inhabitants of the woods and deſarts, has a head

head very large, and not at all proportioned to his body. He has a thick flattiſh noſe, a very wide mouth, red fiery eyes, hollow, and looking ſomewhat awry. His neck his adorned with a fine ſhagged mane, but the lioneſs wants this ornament. He has a long tail, very ſtrong legs, and each of his fore feet has five diſtinct claws, the hinder but four, all crooked, ſharp, and exceeding hard. The hair of ſome lions is curled, of others lank and thin, and always of a dunniſh colour; for thoſe who pretend there are black, white, and red lions, are groſsly miſtaken, none ſuch being to be found, except thoſe which owe their birth to heraldry or painting. The roaring of the lion is frightful, and every beaſt dreads his approach; but notwithſtanding all his courage and fierceneſs, it is ſaid, that he himſelf trembles at the crowing of a cock. He is of a very ſavage nature, preying upon other animals, chiefly the wild boar, which yet, as Dr. Shaw informs us, hath ſometimes been known to defend itſelf with ſo much bravery, that the victory has inclined to neither ſide, the carcaſſes of them both having been found lying dead together, all in gore and mangled to pieces.

Next to the lion, among the quadrupeds of a leſs tameable nature, we ought to mention the Panther, whoſe ſkin is of a yellow colour, beautifully marked with round black ſpots, his hair ſhort and moſſy, and who is thought to equal, if not exceed the lion in its ſavage qualities. This creature is very ſwift,

and

and attacks both men and beaſts; but his uſual method of ſeizing his prey, is jumping upon it by ſurprize. His tongue is rough as a file, and his ſkin is in great requeſt for its beauty, and bears a large price, being not very common. The female panther, like the lioneſs, has two rows of nipples, giving ſuck to three, ſometimes four or five whelps at a time.

There is an animal in Barbary called Faadh, which agrees with the leopard in being ſpotted, but differs in other reſpects; for the ſkin is not only of a deeper colour, but much coarſer; neither is the creature itſelf of ſo fierce a natute: however the Arabs imagine it to be a ſpurious offspring between a lion and a leopardeſs. It feeds upon carrion, ſometimes upon roots and herbs, and muſt be in great neceſſity if it attacks a ſheep or goat. It can therefore hardly be taken for the *Lupus Cervarius* of the antients, which is deſcribed to be a much fiercer creature.

There are two other animals of this country marked like a leopard, but their ſpots are of a darker colour, and the fur ſomewhat longer and ſofter. The one is of the cat-kind, about a third leſs than a full-grown leopard, and Dr. Shaw thinks it may be taken for a ſpecies of the lynx, or rather for the leſſer panther of Oppian. The other has a ſmall pointed head, with ſuch teeth, feet, &c. as ſhew it to be of the weaſel kind. It has a round ſlender body, about

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The Houbaara
The Boovank

Hulett Sculp

about a foot long, and its tail is regularly marked with a ſucceſſion of black and white ringlets.

The horſe, ſays our author, formerly the glory and diſtinguiſhing badge of Numidia, hath of late years very much degenerated in Barbary; or rather the Arabs have been diſcouraged from breeding up a fine race, which they were ſure would one time or other fall into the hands of the Turkiſh officers. A valuable and well-taught Barbary horſe, beſides the ſuppoſed quality of never lying down, and of ſtanding ſtill when the rider drops his bridle, is to have a long pace, and to ſtop ſhort, if required, in a full career. No other motions are practiſed or admired in that country, it being reckoned very impolite among the Arabs to trot or amble.

Let us now take a view of ſome of the moſt curious birds of Barbary, as they are deſcribed by the learned traveller, we have ſo often mentioned. A remarkable animal of the feathered tribe is the Houbaara, which is as big as a capon, and its body of a longer ſhape. It frequents the confines of the deſarts, and feeds upon little ſhrubs and inſects. The body is of a light dun or yellowiſh colour, interſperſed all over with little brown marks; but the larger feathers of the wing are black, having each of them a white ſpot near the middle. Thoſe of the neck are whitiſh with black ſtreaks, but are chiefly remarkable for their length, and for being erected when it is attacked

attacked or provoked. Its bill is about an inch and a half long, flat, like that of the ſtarling; and its legs agree in ſhape, and in the want of the hinder toe, with thoſe of the buſtard. Nothing can be more entertaining, adds the Doctor, than to ſee this bird purſued by the hawk, and what various ſtratagems it makes uſe of in order to eſcape its enemy.

There is a bird called by the Arabs the Boo-onk, or Long Neck, becauſe in walking and ſearching for food, it thows out its neck ſeven or eight inches. It is of the bittern kind, ſomewhat leſs than the lapwing, having ſhort and ſlender legs, of a green colour. Its bill is likewiſe green, three inches long, and in ſhape reſembling that of a ſtork. The neck, breaſt, and belly are of a light yellow, but the back and upper part of the wings are of a jet black. The tail is ſhort, and the feathers of the neck are long and ſometimes ſtreaked with white.

The Ox-bird, which is about the ſize of a curlew, is very beautiful, being all over of a milk-white colour, except the bill and legs, which are of a fine red. It generally feeds in the meadows, along with cattle; but its fleſh is not ſavoury, and ſoon corrupts.

END OF VOL. IX.